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ABSTRACT

The overall hypothesis tested in this study supported a significant relationship between the local school superintendent's attitude toward federal aid to education profiles and selected factors in his experience and background. This overall hypothesis was expanded to 11 hypotheses for purposes of the study. An inventory of 114 statements about federal aid to education provisions and requirements was submitted to 151 randomly selected public school superintendents from Alaska, Idaho, Oregon, and Washington. Multiple regression correlation and mean difference analysis were performed on the resulting data. Major findings show that (1) public school superintendents in the region differ in their attitudes toward federal aid to education profiles and (2) there are significant relationships between the public school superintendents' attitudes toward federal aid to education profiles as measured by scores obtained on the profile inventories and selected factors in their experience and environment. (Author/JF)

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FINAL REPORT

Project No. 1-J-017
Grant No. OEC-X-71-0030 (057)

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A STUDY OF THE RELATIONSHIP BETWEEN THE LOCAL SCHOOL SUPERINTENDENT'S ATTITUDE TOWARD FEDERAL AID TO EDUCATION PROFILES AND FACTORS IN THE SUPERINTENDENT'S EXPERIENCE AND ENVIRONMENT

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National Center for Educational Research and Development
(Regional Research Program)

FINAL REPORT

Project No. I-J-017
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LOCAL SCHOOL SUPERINTENDENTS' ATTITUDES TOWARD FEDERAL AID TO EDUCATION PROFILES

May 1972

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A B S T R A C T

Problem and Hypotheses

The problem to which this study is addressed is that of the local school superintendent's attitude toward federal aid to education and factors influencing his attitude. The overall hypothesis tested was:

> Ho: There is a significant relationship between the local school superintendent's attitude toward federal aid to education profiles and selected factors in his experience and environment.

The overall hypothesis was expanded to 11 hypotheses for the purposes of the study. Hypothesis I treated the relationship between one or more of the following factors of experience and environment and the superintendent's attitude.

Factors investigated:

1. Superintendent's progressivism-traditionalism score as measured by Kerlinger's Education Scale
2. Age
3. Formal education
4. Recency of training
5. Number of years in present position
6. Number of years as a superintendent
7. Experience with federal aid to education programs as measured in years
8. Experience with federal aid to education programs as measured in the number of different programs
9. Experience with federal aid to education programs as measured in dollar amounts
10. Per cent of local contribution to the total operating school budget

Hypotheses II through XI were designed to investigate the strength of the relationship between each of the 10 selected factors and the superintendent's attitude toward federal aid to education profiles.

Procedure

The procedures used in the study included: (1) the construction of an inventory of 114 statements about federal aid to education provisions and requirements; (2) the submission of the instrument to a pilot group who evaluated the statements on a six point scale from general to categorical; (3) coefficient of agreement and factor analysis were used on the pilot data to determine the items to be used in the final instrument; (4) the administration of the final instruments; and (5) multiple regression, correlation and mean difference analysis techniques were performed on the data.

The major study group was comprised of 151 randomly selected public school superintendents from the states of Alaska, Idaho, Oregon and Washington. For analyses purposes, the study group was divided into subgroups by state and by the largest and smallest 10 school districts in student population. Chief school administrators of 25 randomly selected nonpublic schools from the same states were also included in the study.

For purposes of analysis, the Federal Aid to Education Profile

Inventory was scored on three different profiles, (1) Profile I, statements judged to be descriptive of general to categorical federal aid (total inventory), (2) Profile II, statements judged to be descriptive of mostly general to general federal aid to education, and (3) Profile III, statements judged to be descriptive of mostly categorical to categorical federal aid to education.

Major Findings

1. Public school superintendents in the region under study differ in their attitudes toward federal aid to education profiles; also specific provisions and requirements of federal aid programs.
2. There were significant relationships between the public school superintendents' attitudes toward federal aid to education profiles as measured by scores obtained on the profile inventories and selected factors in their experience and environment. These significant relationships vary from state to state and from profile inventory to profile inventory.
3. The following factors showed the indicated significant relationship to the superintendents' attitudes toward general federal aid to education characteristics:

1. factor one negative
2. factor two positive
3. factor three negative
4. factor six positive
5. factor nine negative

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CHAPTER I

PROBLEM, HYPOTHESIS, AND DEFINITIONS OF TERMS

I INTRODUCTION

The idea that an educated populace is necessary to the existence and well-being of a democratic state, stemming from the time of Jefferson and the forming of the Federal Constitution, coupled with technological advances, the population explosion, the knowledge explosion, and increased demand for more years of free education for more people, has created a tremendous financial burden on many if not all local school districts. Education finds itself in stiff competition with other social agencies for the tax dollar.

The following statements, taken from the Educational Policies Commission's report on school financing in 1959, sum up the situation:

> The assumption has been that the schools which communities provide for themselves will be adequate for the nation; but, today the national need for high quality in public education has become more urgent than ever before. America's success in fulfilling her new responsibilities of leadership may well determine the future of free people everywhere. Yet, most localities today are hard put to finance the schools on which that success depends, and in too many places unsolved financial problems mean inadequate education.1

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[1] National Policy and the Financing of the Public Schools, National Education Association (Washington: Education Policies Commission, 1959), pp. 5-6.

> The Ability of the American society to conduct its essential affairs--political, economic, and military--depends directly upon education and can no longer be considered exclusively a local or even a state concern. It is a national concern.[2]

Since 1959, almost every state has analyzed and revised its public school finance program. In the main, those changes in public school finance resulted in the states assuming a larger proportion of the total educational costs. There has also been an emphasis on equalization of state aid according to local ability to pay. The ability to pay is generally measured by local property wealth. The net result has been an increased burden on the local property taxpayer. In the late 1960's, a taxpayer revolt began. While general in nature, this revolt had a great impact on financing of public education. News articles, such as "Growing Protest Against School Cost,"[3] "Youngstown Shuts its Schools,"[4] and "No Money, No Classes, Growing Problem in Some States,"[5] were very common.

For the first time in the history of this nation, the voting public, especially property tax-paying voters, were beginning to

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[2]Ibid., p. 11

[3]U.S. News and World Report, October 20, 1969.

[4]Nation, December 30, 1969.

[5]U.S. News, December 9, 1968.

question their ability to meet the increasing cost of education. James M. Buchanan, Professor of Economics at Virginia Polytechnic Institute, cautions that while the revolt may be short lived it may become more, rather than less, intense.[6] The supreme tax revolt is further exemplified by the recent California Case (Serrano vs. Priest) in which the Court ruled that the school financing, which is derived from over 50 per cent local property taxes, " discriminates on the basis of the wealth of a district and its residents."[7]

In 1959, the Educational Policies Commission pointed out that for education there are three choices. 1) It can continue as it is with the state and locals paying in excess of ninety per cent of the cost, and widen the gap in educational opportunities in different locations; 2) reform the tax structure to get more net national product into state and local coffers; or 3) transfer to the federal government responsibility for a significant share of the support of public schools.[8]

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[6]James M. Buchanan, "Tax Payer Constraints on Financing Education," Economic Factors Affecting the Financing of Education, ed. Johns et al. (Gainesville, Fla: National Educational Finance Project, 1970), pp. 277.

[7]School Law Review, (Western Editor) Stephen F. Rouch, Editor and Publisher (Needham, Massachusetts, November, 1971), Vol. XI, No. 103.

[8]National Policy and the Financing of Public Schools, op.cit. pp. 21-22.

Sufrin, in his monograph on "Issues in Federal Aid to Education," points out three vital issues that must be settled before significant federal aid to education can be accomplished. They are: 1) the problem of parochial and private schools, 2) the problem of the use of funds collected in one area of the country to support education in another area, and 3) the question of local autonomy of education administration.[9] He also maintains that differences in levels of educational support, both fiscal and otherwise, stem from more than simple economic considerations. Tradition, sociological factors, psychological factors, and general level of educational attainment are also factors contributing to the support or lack of support of public education.[10] This study is addressed to the administrative aspect of turning to the federal government for significant aid.

Although education has been considered vital to the welfare of the nation since its beginning, as evidenced by this passage from the Northwest Ordinance of 1787--"Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged"--it was not until 1936 that congressional action

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[9]Sidney C. Sufrin, Issues in Federal Aid to Education, (Syracuse University Press, 1962), pp. IX-XIV.

[10]Ibid., pp. 1-7.

under the clause of importance to national welfare was tested.

Legal precedent for the use of federal aid to assist state and local governments under the welfare clause, Article I, Section 8, of the Federal Constitution, was established in the case of the United States vs. Butler in 1936.[11] In recent years, importance to national welfare has been used increasingly as a basis for providing federal aid to state and local governments for educational activities. Notable among these federal acts are the National Defense Education Act of 1958, the Economic Opportunity Act of 1964, the Elementary and Secondary Education Act of 1965, and the Vocational Education Acts.[12]

Proponents of federal aid to education are quick to point out that the total of all federal aid is still less than ten per cent of the total cost of education in the nation. They also point out that limitation on the use of federal funds poses considerable administrative problems. Some fear that federal control will accompany federal aid, and that the local autonomy that school systems have enjoyed throughout the years will be weakened or destroyed.[13]

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[11]Kern Alexander, Ray Corns, and Walter McCann, Public School Law: Cases and Materials, (St. Paul: West Publishing Co., 1969), pp. 35-36.

[12]U.S. Statutes at Large, Vol. 85, (88th, 89th and 90th Congress), U.S. Government Printing Office, Washington, D.C.

[13]Sidney W. Tiedt, The Role of the Federal Government in Education, (New York: Oxford University Press, 1966), pp. 33,34,72.

II THE PROBLEM

Statement of the Problem

Federal aid is, in general, the least significant in amount of the different governmental levels (local, state, and federal) of support for education. However, it is the oldest form of public support for education. Present day federal aid programs, as exemplified by return from federal forest sales, in lieu of tax in heavily federally inpacted areas, support for library resources, special programs for the disadvantaged, special programs for handicapped children, support of innovative programs, and so on, are categorical in nature.

The problem to which this study is addressed is that of local autonomy in implementation of federal aid to education programs. It appears to be two dimensional in nature. One dimension is that of what elements in the federal laws, rules, regulations, guidelines, and operational procedures are desirable, acceptable, and undesirable from the superintendent's attitudes. A second dimension is that of what factors influencing superintendents' attitudes might be altered to bring about an attitude change on the part of the superintendent toward federal aid to education.

The proposed study deals in the main with the effective and

efficient use of federal funds in local school districts. Specifically, it deals with superintendents' attitudes toward federal aid to education profiles. It is hoped that knowledge of superintendents' attitudes toward federal aid profiles will provide valuable input into the design, administration, and implementation of federal aid to education programs.

Although a review of related studies reveals few that address themselves specifically to the topic, it has been generally assumed that school superintendents as a group are opposed to federal aid to education if the aid includes a measure of federal control. The American Association of School Administrators has endorsed federal aid to education without federal control.[14] Goldhammer and Associates conducted a study in 1967 designed to describe contemporary and emergent problems of educational administration as confronted and perceived by the superintendents of schools. A portion of this study dealt with federal influence affecting educational change and the superintendents' preception of federal aid. The following are summary statements from the study:

> The new roles of the federal government in relation to lo local school districts are met by the superintendents with mixed emotions. . . .

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[14]AASA Proceedings, 1956-1969.

> Most superintendents do not feel that local participation in federal programs is actually voluntary. They see federal programs as local money coming back and if we don't spend it, it is lost. . . .
>
> The major fear expressed by the superintendents, as might be expected, revolved around the issue of increasing federal control of education with a corresponding loss of local control. . . .
>
> Administrators do not want the federal government involved in prescribing curriculum...or in any other way interfering with decisions that traditionally have been made on the local level. . . .
>
> Categorical aid came under particularly heavy attack. . . .
>
> Several admitted that they favored categorical aid. . . .[15]

Assumptions of the Study

Based on the study cited above, other related reading and personal experiences with superintendents, and other local school personnel's reactions to federal aid, the writer makes the following assumptions:

> 1) Local school superintendents differ in their views of federal aid to education. 2) The superintendent's attitude is an outgrowth of selected factors in his experience and environments. 3) The views and attitudes of superintendents are related to the success of federal aid to education programs.

Purposes and Uses of the Study

This study will serve either to cast doubt on the idea that

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[15]Keith Goldhammer, et al., Issues and Problems in Contemporary Education Administration, Center for Advanced Study of Education Administration, University of Oregon, Eugene, 1967, pp. 12-15.

school superintendents as a group are opposed to federal aid to education accompanied by a measure of control, or it will serve to further confirm this idea. Secondly, it can be used as an indicator of resistance among local school superintendents in the selected states to specific provisions and requirements of federal aid to education programs. Thirdly, the results of the study can be used to determine characteristics associated with superintendents that tend to make them more receptive to certain federal aid to education program provisions. Specifically, the results of the proposed study can be used to:

1. Assist federal and state administrators of federal aid programs to identify, anticipate and possibly circumvent problems associated with specific provisions of federal aid laws, rules, regulations, and guidelines. For example, a finding that superintendents with limited or no experience with federal aid programs correlate highly with negative attitude toward federal aid programs or special provisions of these programs implies that training programs could be employed to reduce the resistance on the part of the superintendent.

2. Provide information to the originating sources of federal aid acts which will assist the authors of the acts, rules, regulations, and guidelines to make them more palatable to local superintendents, resulting in increased chance for a successful program. If the reporting requirements for the program are so strenuous that they antagonize the superintendent, this operating requirement of the program might be relaxed somewhat to increase the chance of success of that program in the future.

3. Provide information to local hiring authorities that will enhance their chance of selecting a superintendent whose attitude toward federal aid is more compatible with their

own. Hearn found that "younger superintendents who had doctorate degrees and more years of experience as superintendents had significantly greater adoption rates" for Title III, ESEA, (Elementary Act of 1965) programs.[16]

Objectives of the Study

1) To determine if local superintendents have different attitudes toward federal aid to education, also specific provisions and requirements of federal aid to education programs. 2) To determine if there is a relationship between the local school district superintendent's attitude toward federal aid to education profiles and selected factors in his experience and environment.

III HYPOTHESES

H_1: There is a significant relationship between the local school superintendent's attitude toward federal aid to education profiles and selected factors in his experience and environment.

Factors to be investigated:

1. Superintendent's progressivism-traditionalism score as measured by Kerlinger's Education Scale
2. Age
3. Formal education
4. Recency of training
5. Number of years in present position
6. Number of years as superintendent

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[16]Norman E. Hearn, "A Study of the Adoption Rate of ESEA Title III Innovations When Federal Funds Were Terminated," (Phi Delta Kappan, Vol. LII, No. 1, Sept, 1970), pp. 59-61.

7. Experience with federal aid to education programs as measured in years
8. Experience with federal aid to education programs as measured in the number of different programs
9. Experience with federal aid to education programs as measured in dollar amounts
10. Per cent of local contribution to the total operating school budget

H_2: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his progressivism-traditionalism score as measured by Kerlinger's Education Scale.

H_3: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his age.

H_4: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his formal education.

H_5: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his recency in training.

H_6: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his number of years in present position.

H_7: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and the number of years he has been a superintendent.

H_8: There is a significant relationship between the superintendent's attitude toward federal aid to education programs and his experience with federal aid to education programs as measured in years.

H_9: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in the number of different programs.

H_{10}: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in dollar amounts.

H_{11}: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and the per cent of local contribution to the total operating school budget.

IV DEFINITIONS OF TERMS

1. Categorical Aid. Financial aid that is restricted in its allocation to specific reasons (in lieu of tax, dedicated sales of national forest timber, etc,) or its use to specific purposes (disadvantaged, handicapped, library resources, etc.), or both.
2. External Evaluation. Program evaluation done by a person or persons external to the organization who administer and conduct the program.
3. Federal Aid Profiles. Sets and subsets of statements judged by experts to be descriptive of general to categorical aid to education.
4. Federal Support. Financial support appropriated by Congress and administered by a federal agency.
5. General Aid. Financial aid that is nonrestrictive in its use.
6. Program Guidelines. Publications promulgated by administering agencies to delineate the conditions under which categorical aid programs must operate. Guidelines have the effect of

rules and regulations in the absence of specific rules and regulations.

7. Project. A description of process, activities, and conditions under which a program will be implemented. Once approved, the project constitutes the working agreement between the implementing agency and the granting or approving agency.
8. Internal Evaluation. Program evaluation done by a person or persons within the organization who administer and conduct the program.
9. Local Educational Agency. An administrative unit at the local level which exists primarily to operate public schools or to contract for public school services. Normally, taxes can be levied against such units for school purposes. The units may or may not be coterminous with county, city, or town boundaries.
10. Local Support. Financial support produced within the school district operating the schools and available to the district in the amount produced.
11. Rules and Regulations. The stated conditions under which a congressional act is to be implemented. Rules and regulations appear in the Federal Register.
12. State Educational Agency. The organization established by law for the primary purpose of carrying out a part of the educational responsibility of the state. It is characterized

by having statewide jurisdiction and may be composed of a state board or "commission," chief executive officer, and staff.

13. State Plan. The contractual agreement under which a state implements a federal act. The state plan is the legal basis for transferring part or all of the administrative responsibility for federal aid programs from the federal level to the state level.

14. State Support. Financial support produced within the state and provided by state government to local school districts.

V ORGANIZATION OF THE REPORT

The review of related literature and research are presented in Chapter II, while Chapter III describes the procedures used in carrying out the study. Data analysis and findings are presented in Chapter IV, and conclusion and recommendations are included in Chapter V.

CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

Chapter II is divided into three major parts. The first part treats the philosophilcal, historical, economic, and legal background of the general problem of financing public education which relates to the specific problem of administration of federal financial aid. Part two summarizes the present status of federal aid to education. In part three, research related to the administration of federal aid to education and attitudes of local school superintendents is reviewed.

I BACKGROUND

Philosophical and Historical Background

In the very early days of Colonial America, operating schools was a function of the church, whose main purpose was to teach everyone to read the Bible. Private schools with a curriculum broader than that of the church and aimed toward utilitarian values were also established very early.[1] As early as 1642, the Massachusetts Bay Colony passed an act providing for industrial education and recognizing other purposes of education. Again

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[1]Truman M. Peirce, Federal, State, and Local Government in Education, (Washington, D. C.: The Center for Applied Research in Education, Inc., 1964), pp. 1-6.

in 1647, Massachusetts passed a common school law to be financed through public taxes, tuition, and grants. The law reads as follows:

> It is therefore ordered that every township in this jurisdiction, after the Lord hath increased them to the number of fifty householders, shall then forthwith appoint one within their Town to teach all such children as shall resort to them to write and read, whose wages shall be paid either by the parents or masters of such children, or by the inhabitants in general....[2]

Following the example set by Massachusetts, several colonies attempted to support schools financially through local taxes and state funds. It is believed that these were the roots of this country's philosophy that education is a local responsibility.

Connecticut established a form of state support for schools through the distribution of the money it received from the sale of its western lands. New York also passed a law granting funds to municipalities to be used for schools and to be supplemented locally by one half that amount. These attempts at state aid to schools were meager at best and short lived.[3]

The early Nineteenth Century saw very few changes in the support of schools. New York created a system of local school

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[2]Sidney W. Tiedt, The Role of the Federal Government in Education, (New York: Oxford University Press, 1966), pp. 14-15.

[3]Paul Mort, Reusser and Polley, Public School Finance, 3rd Edition, (New York: McGraw-Hill Book Co., Inc., 1960), pp. 193-195.

government which gave them taxing powers and required that they match the state aid. Southern Carolina established free schools at state expense with those most needy getting first call on the schools. Mid-Nineteenth Century saw the emergence of public controlled and public financed systems of education.[4]

Federal financing of public schools through 1860 was limited to land grants, a per cent of the income from the sale of public lands in the respective states, and a per cent of the income from the extraction of nonmetalic minerals and national forest sales. While the dollar amount was not very significant, the fact that these funds could be used for general public school purposes and the federal government exercised no control over education as a condition for receiving the grants may have established a precedent for state aid for public schools.[5]

Late Nineteenth Century and early Twentieth Century saw the states taking over a larger share of the burden of financing public education, and tax supported public education was an accomplished policy in all the states. About one-fourth of the states provided more than 50 per cent of public school support; about one-half the states provided between 15 and 50 per cent of public school

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[4]Mort et al., pp. 195-196.

[5]Roe L. Johns and Edgar L. Morphet, The Economics and Financing of Education, 2d ed., (Englewood Cliffs: Prentice-Hall Inc., 1969), pp. 418-420.

support; and the rest of the states provided less than 15 per cent of the cost of the public schools. Comparing the 1890 situation to the situation in 1956 shows that the posture of the states with regard to state support for public schools was fairly well fixed by 1890.[6]

The second quarter of the Twentieth Century could well be termed the "era of state aid programs." Students of school finance--namely, Cubberley, Strayer, Haig, Mort, and Updegraff--were proposing state aid programs varying from flat grant, to equalization, to incentive, or a combination of approaches. The objectives were: state sharing of the burden of the increasing cost of public education, equalization of the cost of quality education for every student in the state, and broadened tax base. The relative percentages of support from local, state, and federal sources did not vary as much state by state as the total national cost distribution among the three levels. The reason for the state increase of about 20 per cent on a national average was due in part to the fact that new states coming into the Union during that time provided a higher per cent of support for public schools. The major jump in state aid came in the depression years when extreme stress was upon the local tax base.[7]

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[6]Mort et al., op. cit., pp. 195-197.

[7]Arvid J. Burke, Financing Public Schools in the United States, rev. ed., (New York: Harper and Bros. Publisher, 1957), Chapters IX-XIII, and Mort et al, op. cit., Chapters 11-14.

The more than two per cent increase in federal support was due largely to the addition of vocational education aid, assistance to schools in areas affected by federal government activity, and the national school lunch milk program.[8]

From mid-1950 until 1967 might be described as the "era of categorical federal aid to education." The percentage of total cost of public elementary and secondary education provided by the federal government almost tripled during the period, while, the percentage of state support increased slightly, and the percentage of local support dropped about seven per cent. However, the local revenue still provided over one-half the total cost (53 per cent) while the state provided 39.1 per cent and the federal provided 7.9 per cent. State and local school finance changes tended more toward internal adjustments for equalization and defining and assuring a minimum acceptable education for all students.[9]

Figure I illustrates the spread of federal education acts through 1968.

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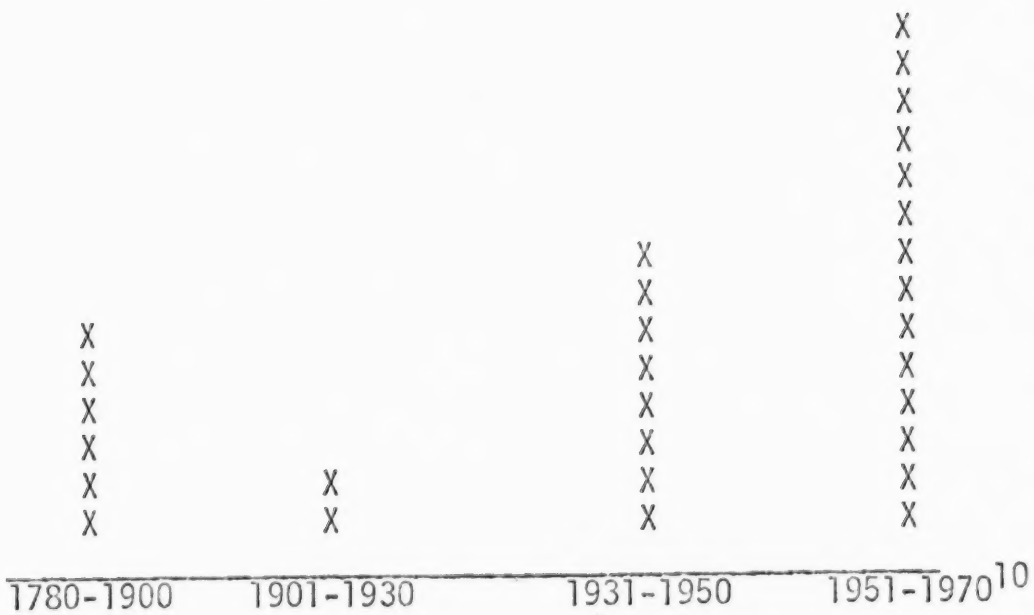
[8]Tiedt, op. cit., Chapter II.

[9]Ranking of the States, 1968 (Washington, D.C.: NEA Research Bulletin 1968-RI), pp. 44-45.

FIGURE I

FEDERAL AID 1780-1970



[10]

A quick analysis of the chart revals that about as many federal aid to education acts have been passed since 1950 as had been passed until then. A second observation is that the greatest number of acts can be associated with the depression, World War II, and an increased social awareness in this country.

Education and the Economy

Since Horace Mann's "Fifth Annual Report Covering the Year 1841," including a treatment of "the difference in the productive ability--where natural capacities have been equal--between the educated," American educators have recognized the now familiar

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[10]John M. Nagle "The Tenth Amendment and Uncle Sam," The Educational Forum, Volume XXXIV, #1, November, 1969 (Kappa Delta Pi).

"indirect benefit" of education to the economy.[11] However, economists have just recently begun to recognize and investigate the relationship between education and economics. In fact, Blaug, in "Economics of Education," a selected annotated bibliography, refers to an article by H. F. Clark in the Indiana University School of Education Bulletin, written as late as 1928, which chides the economists for showing a lack of serious attention to the economics of education.[12]

Early economists, from Adam Smith to John Stuart Mill, recognized the value of education, but they considered education as a consumption rather than a capital investment. However, Mill did point out that if education increases the present or future productivity of an individual or collectively of the nation, then it is capital.[13] It was not until the 1880's, when economists such as Marshall and Nicholson began to recognize the definite possibility of human capital existence as well as

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[11]Horace Mann, Fifth Annual Report Covering the Year 1841, (Washington, D.C.: NEA Facsimle Ed., 1949), pp. 81-120.

[12]Mark Blaug, Economics of Education, (New York: Pergamon Press, 1966, p. 7.

[13]John K. Norton (comp., ed.) Dimensions in School Finance, (Washington, D.C: NEA Committee on Educational Finance, 1966), pp. 73-74.

and distinct from physical capital.[14]

In the 1950's, economists began to shift education from a family of items called consumer-goods to the capital-goods category on which the nation's future depends. Graves, Benson, Schultz and other modern economists preferred the idea that education is indeed a capital-goods item and set about to measure its contribution to the economy.[15]

The U.S.A. has enjoyed a phenomenal economic growth rate from an agricultural economy engaging 80 per cent of the work force in 1800 to an industrialized, urbanized country with only about one quarter of the work force engaged in argiculture and three quarters of the work force engaged in industrial or industrial support occupations by 1920. Today, less than 10 per cent of the work force provides all the agricultural products needed in the U.S.A., with a surplus for other countries, while the rest of the work force is engaged in occupations brought about by technological advances. The Gross National Product increased at more than 3.5 per cent per year during the same period.

That "education is a capital-goods category and as such should be considered as an investment item" is supported by

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[14]Blaug, op.cit., pp. 3-26.

[15]Norton, op. cit., pp. 75-76.

scholars in the field of economics. Schultz, in his presidential address to the American Economic Association, estimated that the stock of education in the labor force rose about eight and a half times between 1900 and 1956, whereas the stock of reproducible capital rose four and one half times.[16] Denison estimated education's share of the growth rate of national income between 1929 and 1957 to be 23 per cent.[17] Weisbrod estimated the capital value of U.S. males at various ages and concluded that the figure for 1960 was far in excess of the value of physical capital.[18] The increased emphasis on better education and systematic, large scale research is both a cause and a product of the continuing development of the American economy, according to Gill.[19] Benson says, "Expenditures on education can properly be regarded as an investment that leads to growth in national income; or, to say the

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[16]Theodore W. Schultz, "Presidential Address to the American Economic Association," December 28, 1960.

[17]Edward F. Denison, "The Sources of Economic Growth in the United States and the Alternatives Before Us," Supplementary Paper No. 13 (New York: Committee for Economic Development, 1962), pp. 67-79.

[18]Burton A. Weisbrod, "The Valuation of Human Capital," Journal of Political Economy, October, 1961, pp. 425-437.

[19]Richard T. Gill, Economic Development: Past and Present, (Englewood Cliffs: Prentice Hall Inc., 1963), p. 72.

same thing, school expenditures stimulate economic growth."[20]

When knowledge is acquired to enrich a person's own life or to provide direct benefits such as immediate satisfaction or utility from the educational process, this education is considered consumer-goods. Education is both capital-goods and consumer-goods. That is, education is both a social service and a capital investment. Professor Bowen summarizes the situation by pointing out that results obtained for the U.S. economy do offer consistent support for the notion that education has paid significant financial as well as non-financial rewards.[21]

Merit goods, as identified by Musgrave, are those which can be provided by the market, but which are thought to be so important to the general welfare of society that their provision cannot be left to the vagaries of the market place. The National Education Finance Project, Volume 5, reports that education is a prime example of a merit good. The report further claims that education is financed primarily through the public budget because the maintenance of an educational system to which all citizens have free access to at least a minimum level of education is

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[20]Charles S. Benson, The Economics of Public Education, 2d ed, (Boston: Houghton Mifflin Co., 1968), p. 47

[21]William G. Bowen, Economics Aspects of Education: Three Essays (New Jersey: Princeton University Press, 1964), p. 32.

thought to be vital to the maintenance of a democratic self-government.[22]

Wagner's law, stated briefly, says the more advanced the civilization, the greater the number and proportion of human wants that must be supplied by government. A review and analysis of information[23] concerning income and expenditures at state, local and federal levels illustrates how the law has been in effect in America:

1. Federal revenue and expenditures have increased at a much more rapid rate than state and local revenue and expenditures.

2. The federal government relies very heavily on individual and corporation income tax for its revenue while state and local revenues come primarily from property and sales and gross receipts taxes.

3. The federal government has assumed a much larger proportion of the burden of paying for welfare and highways than for education. Assistance for highways went from none to about 30 per cent from 1902 to 1966. Welfare assistance increased from about 3 per cent in 1902 to more than 50 per cent in 1966. Education assistance, on the other hand, has increased only about 7 per cent over the same period going from a little over 2 per cent to a little more than 9 per cent.

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[22] "Economics and the Financing of Education," Alternative Programs for Financing Education, (Gainesville, Fla.: National Educational Finance Project, 1971), pp. 11-13.

[23] Sources: Historical Statistics of the United States, U.S. Government Printing Office, 1960, pp. 724-727, Series Y, 446-574. The American Almanac, prepared by the Bureau of Census, 9th by Grosset and Dunlap, pp. 312, 377, 413, Table Nos. 457, 539, 590.

4. Government expenditures per capita have increased faster than the GNP per capita. Education expenditures have increased faster than all government expenditures. "Unlike some other items of expenditures, outlays on education have, in most countries so far, increased faster than GNP.")[24]

5. The cost of education is taking an increasing proportion of the GNP.

In summary, one can see that the federal government, as well as the state and local governments, are providing more services to more people. If this trend continues (there is little reason to suspect otherwise), the competition for tax dollars of revenue among the various governments will become increasingly vigorous. Education is in competition with other social agencies for the local and state tax dollar (the source of about 94 per cent of the revenue for public elementary and secondary schools). The results of satiation of basic needs are immediate, while the results of education are long range.

Property tax (from which most of the total local revenue comes) rates are increasing to a breaking point for many owners of non-income property such as dwellings and vehicles. All this means there will have to be some basic change in the revenue base, a shift of the burden of paying for public schools to another

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[24]F. Edding, Expenditures on Education: Statistics and Comments in the Economics of Education, ed. E.A.G. Robinson and J.E. Vaizey (New York: MacMillan and Co., 1966), p. 64.

level of government or a combination of approaches, or the public schools are in for tough sledding.

One approach to solving the problem of local financing of public education has been to shift a part of the cost to state government. This movement drew attention to the two most important aspects of school finance. First, what constitutes a quality education program that should be made available to every child? Secondly, how does one go about equalizing the tax burden so that taxpayers in each locality are taxed according to their ability to pay.

It has occured to many educators, some economists, and several property taxpayers that the federal government with its access to a broader tax base and the more progressive type of taxes should assume a larger portion of the cost of general public education. The next two sections deal with the legal aspect of financing education particularly as it relates to federal financing of education.

Legal Basis for Financing Education

The legal basis for public financing of common education has its roots in both philosophy and practice. Early settlers came to America to escape political and religious oppression and to search for an unrestricted opportunity to make their way in life. Emphasis on individual freedom and the belief that government

should exist to serve the best interests of all people led the Colonial Americans to develop a unique conceptual design for a government of the people, by the people, and for the people.

The preamble to the United States Constitution reiterates the early settlers concern for individual and national welfare. Neither the Constitution nor any of its amendments refer directly to education. However, this does not mean that there was not concern for education on the part of the shapers of the Constitution. On the contrary, dedication to education and belief in its powers were extended into the new national government. Thomas Jefferson was a strong believer that people could not govern themselves successfully unless they were educated. He advocated a strong public school system.[25]

Since education is not specifically referred to in the Constitution, and Article X of the Bill of Rights delegates powers not delegated to the United States government, to the states respectively, or to the people, it follows that education is a state and local responsibility. About one half of the original states adopted the Constitution with specific reference to education.[26]

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[25]Pierce, op, cit., p. 3.

[26]Ibid., p. 8.

Today, however, state constitutions usually make general reference to the importance of education and to the effect that the legislative body of the state is given the power to establish laws concerning education. This has led to the general consensus that education is a state responsibility.

One part of the U.S. Constitution (Article I, Section 8) that has come to be known as "the general welfare clause" has been used increasingly in latter years as the basic federal aid and federal regulation of the public schools. This clause gives the Congress power to pass laws and appropriate funds for any purpose which enhances the general welfare of the citizenry.

The U.S. and State Constitutions, laws, and court decisions form the bases for legal considerations. They are cyclic in nature with each affecting the other. For example, court decisions on segregation paved the way for the social legislation (Civil Rights Act and the Elementary and Secondary Education Acts of 1965) of the mid-60's which is now being tested in the courts on constitutional grounds.

Federal Aid and the Courts

The courts, in carrying out their three essential functions[27] of applying laws to specific cases, interpretation of enactments,

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[27]Alexander et al., op. cit., pp. 6-9.

and determination of the constitutionality of enactments, have promulgated several significant rulings affecting federal aid to education. Among these rulings are decisions concerning the church-state issue, civil rights, and individual's right to sue the federal government, state's rights vs. "importance to national welfare", the "child benefit theory", and "contract for service theory".

Tiedt divides the church-state issue into four categories; those which deal specifically with (1) religious freedom, (2) governmental assistance, (3) cooperation, and (4) religion in the schools.[28]

The Pierce vs. The Society of Sisters (1925) case overturned an Oregon statute requiring all school age students to attend public school. This also illustrates a case where the Supreme Court ruled that the "Bill of Rights" applied to the states as well as the federal government by virtue of the Fourteenth Amendment.[29]

In 1923, the Supreme Court held that taxpayers do not have a standing to sue the federal government in the case of Frothingham vs. Mellen. The application of this case has had considerable impact on federal aid to education legislation which provided

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[28]Tiedt, op. cit. pp. 114-124.

[29]Alexander et al., op. cit., p. 59.

public assistance to parochial schools because taxpayers do not have a standing to sue. However, in 1968, in Flast vs. Cohen, the Supreme Court ruled that a taxpayer has standing to sue in attacking a federal statute on the grounds that it violates the Establishment and Free Exercise clauses of the First Amendment.[30]

In the case of the United States vs. Butler, in 1936, the Supreme Court held that Congress has the power to lay and collect taxes for acts it has passed under the general welfare clause (Article 1, Section 8) of the U. S. Constitution. Further, in the case of national welfare, the congressional rights and obligations under Article 1, Section 8, outweigh the states rights granted under Amendment X.[31]

The Cochran Case (the Louisiana Textbook Case, 1930), the Board of Education vs. Allan Case of 1968 (free textbook loans to non-public school students), and the Eversson Case (the New Jersey Bus Case, 1945), illustrate cases where the courts have held that governmental assistance to students attending church schools was not in conflict with the U. S. Constitution. The child benefit theory was applied in these cases.

"Cooperation" is illustrated by the Zorach vs. Clausen

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[30]Alexander, et al., op. cit., pp. 14-18.

[31]Ibid., pp. 36-42.

Cases.[32]

The release time program in which students were released to attend religious services on other than public school grounds in the Zorach Case was found to be constitutional. A "shared time" arrangement whereby non-public school students are released from their schools to attend academic (non-sectarian) classes in the public schools has been used extensively in conjunction with the Elementary and Secondary Education Act of 1965.

The "contract for service" theory stems from a Supreme Court decision in which the court upheld the use of government appropriated money to buy services for indegent patients at Providence Roman Catholic Hospital in Washington D.C.[33]

The cited court decisions are illustrative of many court decisions which have greatly reduced the legal barriers to significant federal aid to education. However, success of federal aid to education programs depends on the administration of the program as is true of most financial aid programs. The following section describes the present status of federal aid to education.

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[32]Philip B. Kurland, "The Clouded Crystal Ball: The Supreme Court on Government Aid to Parochial Schools," School Review, Vol. 79, No. 3, May, 1971 (The University of Chicago Press, 1971), pp. 335-336.

[33]Ibid.

II STATUS OF FEDERAL AID TO EDUCATION

The debate over federal aid to education goes back many years. Congressional records are replete with transcripts of hearings dealing with federal aid to education. Senator Lister Hill (D., Ala.), one of the sponsors of a 1948 aid to education bill, illustrated the situation at that time in the following statement made during floor debate:

> Mr. President, bills similar to this one have been before the Senate for many years. Volumes of hearings have been taken. If we were to bring into the chamber from the Committee on Labor and Public Welfare the many volumes of hearings, they would be piled high on our desk. Years after year, the Committee has held hearings. Year after year, the committee has spent weeks considering the bill, attempting to reconcile differences, attempting to wipe out inequities, attempting to bring forth the best possible bill to provide federal aid, with the primary responsiblity for education still continuing in the states.

Between 1948 and 1962, the House and Senate Committees conducted hearings on education aid bills whose published records are estimated to run over 10,000 pages and include more than six million words of testimony.[34]

One might well ask why, with all this concern for education aid in Congress, do we not have more than seven per cent of the

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[34]Frank J. Munger and Richard Fenno, Jr., National Politics and Federal Aid to Education. (Syracuse University Press, 1962), pp. 1-8

cost of public school education coming from the federal government? Sufrin has pointed out that the Congressional debate on federal aid to education in the 1960's has touched on three major points. They are: 1) the problem of parochial and private schools, 2) the problem of the use of funds collected in one area to support education in another area, and 3) the question of local autonomy of educational administration or the question of federal control.[35]

An analysis of the pros and cons of federal aid to education yields the following lists:

Analysis of arguments for:

1. Equalization of education oportunity
2. Need for assistance.
3. National concern for education
4. Broadening of the tax base
5. Mobility of population
6. National acceptance
7. Historical background
8. Local control
9. Efficiency of federal taxes

Analysis of arguments against:

1. Impossibility of equalizing educational opportunity
2. Lack of need for federal assistance
3. Threat of federal control
4. Unconstitutionality
5. Cost of the program
6. Discouragement of individual initiative
7. Opposition by the people
8. Lack of historical precedent
9. Infringement on individual freedom[36]

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[35]Sidney C. Sufrin, Issues in Federal Aid to Education, (Syracuse University Press, 1962), pp. IX-XIV.

[36]Tiedt, op. cit., pp. 14-15.

With the minor exception of the earlier land grants, federal aid to education has been categorical in nature. More recent proponents of federal aid have been calling for a move toward general federal aid. In 1959, the Educational Policies Commission of the National Education Association presented the argument that the ability of the American society to conduct its essential affairs depends directly on education. They concluded that education could no longer be considered as local and state concern only. It must be a national concern also.[37] Miner supports his argument for federal participation in the financing of local schools on the basis of spillover benefits of education and the inequality of ability to pay for education among the states. He maintains that only at the federal level can action be taken to provide funds to equalize these inequalities.[38]

Pierce argues that the federal government, with its freedom to choose to support education, has done so, and the precedent of federal support is so strong that it has the effect of an accepted principle of responsibility.[39]

Johns addresses the tax structure. He points out that the

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[37]National Policy and the Financing of Public Schools, Educational Policies Commission, NEA (Washington D.C., 1959), p. 11

[38]Jerry Miner, Social and Economic Factors in Spending for Public Education, (Syracuse University Press, 1963), p. 141.

[39]Pierce, op. cit., pp. 107-108.

federal government obtains more than 80 per cent of its revenue from the most progressive and equitable types of taxes while state and local revenues are derived mainly from less progressive and to an extent regressive types of taxes. On this basis, he supports greater federal participation in financing education. He suggests a formula approaching 25 per cent federal, 50 per cent state, and 25 per cent local participation in financing education.[40]

Concomitant with federal aid is the question of federal control. Most educators, education policy makers, and lay citizens who oppose federal aid have their fears seated in the possibility of federal control. Mort, Reusser, and Polley present a very good solution to the dilemma in their book on "Public School Finance."

> Powers of the agency of local jurisdiction should be broadly defined in law; Powers of agencies of statewide jurisdiction (the thought may be extended nationwide) should be specifically defined.
>
> In summary, the agency (or government level) responsible for raising the revenue does not necessarily need to be the agency (or government level) that has the ultimate discretion in spending.[41]

Reflecting over the legal implications of federal aid to education, it is no small wonder that there is apprehension among

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[40]R. L. Johns, "The Economics and Financing of Education," in Emerging Designs for Education, Edgar L. Morphet and David L. Jesser, Editors, (Englewood Cliffs: Citation Press, Scholastic Magazines, Inc., 1969), pp. 211, 213, 214.

[41]Mort, et al., op. cit., pp. 28, 33.

school people when it comes to federal aid. Federal act dictates that all students benefit but public schools control. Civil Rights dictate that no discrimination can occur. Amendments I and XIV of the Constitution leave even the law open for court action. On top of all this, there is the contract law governing the administration.

The last part of this chapter treats research related to federal aid and the local school superintendents' attitudes. The attitudes of the local school superintendents greatly influence the success or failure of a federal aid program, and the administrative requirements of the federal aid program influence the superintendents' attitudes.

III ATTITUDE STUDIES

While the review of related research revealed little which deals specifically with school superintendents' attitudes toward federal aid to education, several studies contained findings which form the basis for the independent variables used in this study. The findings of Goldhammer and associates described in Chapter One lend support to the idea that superintendents do differ in their attitudes toward federal aid to education.

Laplonte also found that Washington State Public School superintendents differed in their opinions as to whether categorical federal aid to education was meeting the needs of the

local school districts. He found that 61.8 per cent of the Washington State School superintendents believed that categorical federal aid was effective in achieving their school districts' educational goals. However, these Washington State superintendents' opinions were split on the degree to which federal funds were effective. One group viewed categorical federal aid as helping to achieve the districts' broad goals while the other group viewed it as effective only in application to specific goals. A minority, 38.2 per cent of the superintendents, indicated that categorical federal aid failed to meet the needs of their local district. A large majority, 88.2 per cent of the superintendents, thought that general federal aid would be more effective than categorical federal aid in achieving their districts' educational goals.

Approval of federal goals for education as determined by Congress and implemented through categorical federal aid was expressed by only 23.5 per cent of the Washington State superintendents while 76.5 per cent of the superintendents rejected these federal goals implemented through categorical federal aid. Some exceptions were noted in specific areas such as innovation and stimulation of educational programs.[42]

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[42]Royal Anthony Laplonte, Jr., "Federal Aid to Education: Its Impact on The Public School Districts In The State Of Washington." (Unpublished Ed. D. dissertation, Washington State University, 1968) University Microfilm Inc., Ann Arbor, Mich. #69-3752, pp 52-53.

The factors of age, number of years as a superintendent, number of years in present position, formal education, and recency of training were selected because studies have shown these factors to be related to attitude.[43]

Caudill found that young superintendents and those with fewer years tenure were more unaware of restrictions on federal aid to education. He also found that superintendents who disliked federal aid were more aware of the restrictions and perceived then to be more difficult to satisfy.[44]

Sachs believes that the historical part of the individual is present in his social and psychological perception and is the basis for his values. The interaction of these factors form the

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[43] a. Max G. Abbott, Values and Value-Perceptions in Superintendent-School Board Relationships Administrator's Notebook, 9 (December, 1960), 1-4.

b. Richard O. Carlson, Adoption of Education Innovations, The Center for Advanced Study of Educational Administration, Eugene, Oregon, 1965, pp. 24-27.

c. Donald C. Francke, "Personal Variables Related to the Perception of Decision-Making Responsibilities," The Journal of Educational Research, Vol. 61, #4, December 1967, pp. 166-168.

d. Neal Gross, "The Relationship Between Specified Factors and the Job Performance of the Superintendent," Who Runs our Schools, (New York: John Willey & Sons, Inc., 1958), pp. 174-175.

e. Richard Prince, Individual Values and Administrative Effectiveness., Administrator's Notebook, 6 (December 1957), 1-4.

[44] Morris K. Caudill, "Superintendents' And School Board Members' Conceptions of Restrictions on Selected Federal Aid Programs For Public Schools in Kentucky" (Unpublished Ed. D. dissertation, University of Kentucky, 1969) University Microfilm Inc. Ann Arbor, Mich. #69-18196, pp 136-137.

behavior of his present power notions and decision-making. Sachs' works form the basis for including experience with federal aid to education programs as a factor.[46]

Gross,[47] Lynch,[48] and Goldhammer, et al.,[49] have pointed to the problem of finance and its relationship to the problems of the superintendent. The following excerpt from the study by Goldhammer and his associates supports the rationale for including the percentage of local contribution to the total operating school budget.

> Financing the schools is a major problem mentioned by the superintendents, and several of them listed it as their single most important problem. Most districts suffer from a lack of balance in school support from local, state, and federal governments and, according to a large number of superintendents, local responsibility is much too heavily emphasized.[50]

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[46]Benjamin M. Sachs and G.V. Pitcock, Educational Administration: A Behavorial Approach, (Boston: Houghton Mifflin, 1966), Chapters 1 and 2.

[47]Gross, op. cit. pp. 6-7.

[48]Patrick D. Lynch, "Supplementary Statements on Power Structures and Change," Designing Education for the Future, (Englewood Cliffs: Citation Press, Scholastic Magazines, Inc., 1967), pp. 140-142.

[49]Keith Goldhammer et al., Issues and Problems in Contempory Education, Administration Center for Advanced Study of Education Administration, (Eugene: University of Oregon Press, 1967), pp. 49-50.

[50]Ibid., pp. 49.

In his review of literature Moody[51] reports that John Allen McKnight found in his study, "Perceptions of Ohio Educational Administrators regarding the use of Federal Funds for Education," that administrators of large, high effort school districts generally favored federal aid to a greater extent than those of small, low effort districts. Moody found a significant difference in fiscal effort as measured by wealth per pupil divided by expenditure per pupil between Indiana school corporations participating in a categorical federal aid program with matching provisions and school corporations which elected not to participate.[52]

Caudill[53] found the reactions of Kentucky superintendents toward federal aid to be largely favorable. However, the intensity ranged from very favorable by superintendents from urban districts with inadequate tax bases to a nearly noncommittal attitude by those superintendents from the more rural school districts with moderate-to-poor tax bases.

The factor of progressivism-traditionalism has been shown to be related to educational innovations and diffusion which are

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[51]Alex Charles Moody, "Federal Aid with Matching Provisions Related to financing Adequacy, Equity, and Stimulation Among Selected Classifications fo Indiana School Corporations," (Unpublished ph. D. dissertation, Purdue University, 1968), University Microfilm Inc., Ann Arbor, Mich., #69-7480, pp. 48.

[52]Ibid., pp. 128.

[53]Caudill, op. cit., pp. 1-4.

in turn related to federal aid. Abbott,[54] Carlson,[55] and Lynch,[56] have suggested that there exists a relationship between the superintendent's attitude and progressivism-traditionalism in which the more progressive superintendent tends to be more receptive to federal aid.

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[54]Abbott, op. cit., pp. 1-4.

[55]Carlson, op. cit., pp. 24-27.

[56]Lynch, op. cit., pp. 140-142.

CHAPTER III

PROCEDURE

The procedure followed in the study was to select the population and sample, select data gathering instruments, collect and analyze the data.

Population and Sample

As indicated by the review of related research in the previous chapter, most federal aid to education studies have been limited to a single state. It was felt desirable in this study to include more than one state; however, it seemed almost prohibitive in terms of cost and scope to include all the respective states. Therefore, the population for the study was limited to the Northwest region of the United States.

The sampling procedure used was both purposive and random. The purposive sampling was the choice of the geographical area of the Northwest region of the United States (specifically the states of Alaska, Idaho, Oregon and Washington). These states were chosen because: (1) they comprise the geographical area under jurisdiction of Region X of the U.S. Office of Education; (2) they represent a spread in percentage of local fund contribution toward the total local operating school budget ranging from a low of around 10 per cent to a high of over 80 per cent;[1] (3) local

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[1] Ranking of the States 1969, NEA Research Report, 1969-RI, National Education Association, Washington, D.C., 1969, p. 13.

school districts in these states represent a cross-section of experience with numbers, kinds, and dollar amounts of federal aid to education programs ranging from narrow to broad and from limited amounts to large sums;[2] (4) local school districts in these states vary in size from under 200 students to over 90,000 in student population.[3]

There were over 800 local school districts in the region included in the study. Elimination of school districts with under 200 students where the chief administrator would not likely be a superintendent left approximately 800 school districts in the total population. A random sample of 200 school districts appeared adequate for the statistical treatments included in the study. The 200 school districts under study were obtained by stratified random sampling of school districts from each state equal to the product of the state population divided by the total population of all states included in the study multiplied by 200. This process yielded 8 for Alaska, 20 for Idaho, 59 for Oregon, and 113 for Washington, to be drawn by random sampling.

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[2]Selected Statistics of Local School Systems 1966-67, NEA Research Report 1968-RII, National Education Association, Washington D.C., 1969, p. 13.

[3]Education Directories (1969-70) obtained from the State Departments of Education in Alaska, Idaho, Oregon and Washington.

Instrumentation

A review of related research revealed no available instruments which could be used to assess attitudes toward federal aid to education profiles. A four step procedure was decided upon for the development of a study instrument. The first step was to develop an inventory of statements about federal aid to education and its administrative processes and requirements. Submission of the inventory of statements to a group of judges for face and content validity was the second step. The third step was to send the inventory to a pilot group of local school superintendents. The final step was to analyze the returns from the pilot group to obtain appropriate items and to prepare the final instrument.

A questionnaire type of instrument was decided upon for the first inventory of statements. Kraut lists seven advantages of using a questionnaire in studies of this kind:

1. Comprehensiveness--it can cover as many facets of a given situation as are necessary.
2. Objective--all respondents have the same questions asked the same way and answered with the same set of responses.
3. Frankness of reply--it allows for confidentiality of responses and anonymity.
4. Permits meaningful comparisons between groups.
5. Facilitates use of data collection.
6. Allows for ease of data processing.
7. Two kinds of data are available:
   a. Management practices of current short-range issues.

b. Organization behavior for long-range planning.[4]

Due to the large number of items needed to cover the subject and the number of respondents, a six part Likert-type scale was used. Borg has indicated:

> In many cases the research worker wishes to measure on attitude for which no scale is available. The Likert technique is usually the easiest method in developing scales needed in research projects.[5]

Survey statements (114) covering 19 areas of federal aid to education were developed. Areas covered included all major facets of the federal aid to education process from the passage of the federal act through final evaluation and financial reports. The instrument was so constructed as to allow the respondents to classify each statement within a given area as: (1) general; (2) mostly general; (3) somewhat general; (4) somewhat categorical; (5) mostly categorical; and (6) categorical. These statements were developed by analyzing provisions and requirements of existing federal aid to education laws, rules, regulations and guidelines, governing federal aid to education programs.

The initial inventory of survey statements was submitted to a panel of 11 judges composed of professors of educational

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[4]Allen I. Kraut, "Opinion Surveys; Turning Results into Action," Personnel, XLIII (Fall, 1966), pp. 58-59.

[5]Walter R. Borg, Educational Research; An Introduction (New York: David McKay Co., 1963), p. 110.

administration at New Mexico State University and state federal aid to education directors who evaluated the items for face and content validation. According to Sax, "Content validity is determined by asking a group of experts to rate the extent to which each item on a questionnaire appears to measure some universe of opinion, attitude, or belief."[6] Both Tate, who indicated that if a test is constructed in accordance with opinions of authorities, it may be considered to be formally valid,[7] and Downie, who says a group of judges can be used to validate the items of an attitude scale,[8] support this validation process.

Review by the panel resulted in several minor changes in the instrument. The next step was to submit the revised survey inventory of statements to a pilot group. A copy of the survey statements is included as Appendix A.

Pilot Group Data Collection and Analysis

The purpose for using a pilot group was two-fold. As peers of the study group, they were used to evaluate and assign values to the statements used with the study group. Secondly, their evaluations were used to determine the degree of agreement that could be expected within each of the 19 areas, and provide a

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[6]Gilbert Sax, Empirical Foundations of Education Research (Englewood Cliffs, N.J.: Prentice-Hall, 1968), p. 232.

[7]Merle W. Tate, Statistics in Education (New York: Macmillan Co., 1955), p. 330.

[8]N.M. Downie, Fundamentals of Measurement: Techniques and Practices (New York: Oxford University Press, 1967), p. 414.

basis for choosing between or among statements that were assigned the same value. Cohens's agreement analysis procedure and factor analysis were used in analyzing the pilot group data.

During the latter part of July, the survey statement inventories were sent to local school superintendents in New Mexico, Colorado and Wyoming. In the cover letter, the superintendents were asked to assign scaled value to each statement indicating their classification of the statement from general to categorical in reference to types of federal aid. Twenty-one superintendents from Colorado, New Mexico and Wyoming returned the questionnaire. One return could not be used and another return was received after the analysis of data had begun and was not used.

Analysis by Cohen's Agreement Test was performed on the data.[9] The results are shown in Table I. The degree of agreement after chance was significant at the 0.01 level of confidence or more for each area; therefore, none of the 19 areas were eliminated.

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[9]Jacobs Cohen, "A Coefficient of Agreement for Nominal Scales," Educational and Psychological Measurement, Vol. XX, No. 1, pp. 37-46.

TABLE I

COEFFICIENTS OF AGREEMENT FOR NINETEEN AREAS

Area	Proportion of Agreement (k) Corrected for Chance
1. Law	k = 0.3978
2. Rules and Regulations	k = 0.4693
3. Guidelines and Program Bulletins	k = 0.5023
4. State Plan	k = 0.2960
5. Project Development	k = 0.2530
6. Project Complexity	k = 0.4000
7. Project Participants	k = 0.3546
8. Project Design	k = 0.5444
9. Project Purpose	k = 0.4842
10. Conduct of Program	k = 0.1918
11. Project Approval Process	k = 0.4070
12. Project Monitoring Process	k = 0.3880
13. Project Evaluation	k = 0.4269
14. Project Reporting & Dissemination	k = 0.3702
15. Program and Fiscal Auditing	k = 0.4842
16. Flow of Funds Timing	k = 0.2385
17. Flow of Funds Routing	k = 0.2602
18. Matching Requirements	k = 0.2016
19. Distributions of Federal Funds	k = 0.2338

Although the coefficient of agreement was significantly different from 0.0 at the 0.01 level of confidence, the proportion of agreement was still low ranging from about 0.19 to 0.54.[10]

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[10]A possible explanation of the low agreement finding is indicated by data in the study supporting the idea that superintendent's opinions relative to federal program constraints do differ.

The low agreement finding gave greater credence to the need for factor analysis. Although Kerlinger reports that some factor analysts in some studies consider factor loading of .30 to .40 as sufficiently high to consider an item as loading on a factor, it was decided not to use items with factor loads of less than .70 to help eliminate this ambiguity.[11] Further, it was decided to keep only the items having the heaviest loading on a given factor for the final instrument. The modal value assigned to an item having the heaviest factor loading became the value assigned to the statement. The factor analysis process in the UCLA Biomedical Computer Program series was used and the number of factors ranged from three to four per federal program area. The rotated factor matrix for area E-3 (Project Participants) is shown as an example in Table II.

TABLE II

ROTATED FACTOR MATRIX FOR PROJECT PARTICIPANTS

Item	Factor I	Factor II	Factor III	Modal Response
a	0.82617	-0.11044	-0.32026	6
b	0.86773	0.11923	-0.25053	6
c	-0.20879	-0.03354	0.82463	1
d	-0.32461	0.04749	0.80333	1
e	-0.16189	0.80450	0.10389	4
f	0.18483	0.84289	-0.10069	5

[11]Fred N. Kerlinger, Foundations of Behavorial Research: Education and Psychological Inquiry, (New York: Holt, Rinehart and Winston Inc., 1964), p. 654.

Items b, c, and f with modal assigned values of six, one, and five, respectively, were items selected from the project participants area for inclusion in the instrument to be used with the study group. All 19 rotated factor matricies with modal responses are included as Appendix B. A final adjustment was made to balance the six categories from general to categorical resulting in nine each statements for general and categorical and six each statements for mostly general, somewhat general, somewhat categorical and mostly categorical, for a total of 42 statements. The final inventory of profile statements with their values indicated in parentheses to the left of each statement is included as Appendix C.

Study Group Data Collection

As indicated earlier, the sample chosen for the study group was both purposive and random. The sample was also stratified in that the samples were chosen randomly by state within the region. Samples from Alaska, Idaho, Oregon, and Washington were chosen by assigning consecutive numbers to each local school district with 200 or more students as they appeared in the 1969-70 issue of the U.S. Office of Education's listing of local school

districts. A table of random numbers was used to select the local school districts and their superintendents to be used in the study.

The first mailing of the profile statements inventory (Appendix C), Kerlinger's Education Scale (Appendix D), and the personal/demographic data instrument (Appendix E) to the study group was during the last week of October. All three instruments had been reduced by photographic process to enable them to be placed onto the back of a single sheet of 8-1/2" by 11" paper for ease and convenience. A cover letter and a return addressed and stamped envelope were included with the instruments. The superintendents were asked to return the questionnaire within two weeks. Three weeks later a follow-up, including the same materials as the first request and a second request indication, was sent to those who had not yet responded. About two weeks later, a third follow-up was sent. As of December 20, 1971, a return of 154 questionnaires (77 per cent) was recorded and the data analysis process was started. Three returns were not usable, leaving 151 returns to be analyzed. Three returns were received subsequent to the start of data analysis and were not used. This

brought the total number of returns to 157 or 78.5 per cent.

Returns. Since this study was done on a random sample basis, the optimal return would have been 100 per cent. However, when mailed questionnaires are used, the chance of getting 100 per cent return is very limited. Wiersma states that 75 per cent is generally considered a minimum rate of return for mailed questionnaires.[12]

An analysis of returns by state showed Alaska with 100 per cent, Idaho with 75 per cent, Oregon with 71 per cent, and Washington with 80 per cent.

Validity and Reliability

Face and content validity of the Federal Aid to Education Profile Statements Inventory was established by a panel of experts and through Cohen's agreement and factor analysis procedures as

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[12]William Wiersma, Research Methods in Education, (Phildephia: Lippincott Co., 1969), p. 282.

described in an earlier section of this chapter. Reliability was established by split-half correlation. The split-half method yielded a correlation of .55, which adjusted to an estimated reliability of .71 by the use of the Spearman-Brown prophecy formula computation below:

$$\text{Estimated Spearman-Brown Reliability of total instrument} = \frac{2x \text{ Actual correlation between halves of instrument}}{1+ \text{ Actual correlation between halves of instrument}}$$

$$E = \frac{2 \times .55}{1 + .55} = .71$$ [14]

The Kerlinger Education Scale used in this study as an independent variable is reported by Shaw and Wright to have satisfactory estimates of reliability and validity.[15]

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[14]David J. Fox, The Research Process in Education, (New York: Holt, Rinehart and Winston Inc., 1969), pp. 356-359.

[15]Marvin E. Shaw and Jack M. Wright, Scales for the Measurement of Attitudes, (New York: McGraw-Hill Book Co., 1967), pp. 83-86.

Hypotheses Testing and Analysis

All information concerning the independent variables (factors of experience and environment) as well as the dependent variable of attitude toward federal aid to education profiles was collected by the single questionnaire of three parts described earlier and included as Appendices. Study group responses to the profile statements, Kerlinger's Education Scale, and the personal/demographic data questions were coded, key punched, and subjected to the analysis described below. Hypotheses are stated in the null form for the purpose of analysis. Ordinal data is treated as if it conformed to interval scales on the strength of Labovitz's 1967 research.[16]

H_0 I: There is no significant relationship between the local school superintendent's attitudes toward federal aid to education profiles and selected factors in his experience and environment.

Factors to be investigated:

1. Superintendent's progressivism--traditionalism as measured by Kerlinger's Education Scale.
2. Age
3. Formal education
4. Recency of training
5. Number of years in present position
6. Number of years as a superintendent
7. Experience with federal aid to education programs as measured in years

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[16]Sanford Labovitz, "The Assignment of Numbers to Random Order Catagories", American Sociological Review, July 1970, pp. 515-524.

8. Experience with federal aid to education programs as measured in number of different programs
9. Experience with federal aid to education programs as measured in dollar amounts
10. Percent of local contribution to the total operating school budget

Step-wise multiple regression analysis was used to test this hypothesis. The advantage of this procedure as seen by Draper and Smith is that it involves:

> re-examination at every stage of the regression of the variables incorporated into the model in previous stages. A variable which may have been the best single variable to enter at an early stage may, at a later stage, be superfluous because of the relationships between it and other variables now in the regression.[17]

The procedure is as follows:

1) A simple correlation matrix is generated and the "X" variable most highly correlated with the criterion is entered into regression.

2) Using the partial correlation coefficients, the next variable, selected to enter the regression is the "X" variable whose partial correlation with the criterion is highest.

3) Given the regression equation in two variables $Y = F(X_1, X_2)$, examine the contribution X_1 would have made if X_2 had been entered first and X_1 second. If the value of the partial "F" is statistically significant, the X_1 variable is retained. The step-wise method now selects the next variable to enter the one having the highest partial correlation with the criterion variable.

4) A regression formula of the form $Y = F(X_1, X_2, X_3)$ is determined by least squares. If the F value for X is statistically significant, it is retained. Partial F tests for variables X_1 and X_2 are made to determine if they should remain in the regression equation.

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[17]N.R. Draper and H. Smith, Applied Regression Analysis, (New York: John Wiley and Sons, 1967), p. 171.

5) The above procedure is repeated until all variables have either been selected or rejected, and a final regression formula of the form $Y = F(X_1, X_2, \ldots\ldots X_k)$ is derived.[18]

The computations were done by the use of BMD 02R Step-wise Regression package developed at UCLA and published by the University of California Press in their collection of Biomedical Computer Programs.[19] It was predetermined to reject the null hypothesis at the 0.1 level of confidence.

For the purpose of this analysis and the analysis used with hypotheses II through XI, the federal aid to education profile statements (Appendix C) were subgrouped into the following profiles and analyses performed by state, by total group, by the largest 10, and by the smallest 10 school districts in student population.

Profile I

Profile I includes all the statements in the inventory.

Profile II

Profile II includes the statements to which the pilot group assigned Values one and two.

Profile III

Profile III includes the statements to which the pilot group assigned Values of five and six.

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[18]Ibid., pp. 171-172.

[19]W. J. Dixon, ed., BMD: Biomedical Computer Programs, (Los Angeles: University of California Press, 1968), pp. 233-247.

H_o II: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his progressivism-traditionalism score as measured by Kerlinger's Education Scale.

H_o III: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his age.

H_o IV: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his formal education.

H_o V: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his recency in training.

H_o VI: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his number of years in present position.

H_o VII: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and the number of years he has been a superintendent.

H_o VIII: There is no significant relationship between the superintendent's attitude toward federal aid to education programs and his experience with federal aid to education programs as measured in years.

H_o IX: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in the number of different programs.

H_o X: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in dollar amounts.

H_o XI: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and the per cent of local contribution to the total operating school budget.

Hypotheses II through XI were tested for significance by use of the correlation technique in the previously cited UCLA Biomedical Series. A significant correlation at the 0.1 level of confidence was predetermined as the level for rejecting the null hypotheses.

Other Analysis

A comparison of the ten largest and the ten smallest school districts by student population utilizing the previously stated hypotheses and data analyses was made. The following null hypothesis was tested by a chi-square test.

> H_0: There is no significant difference between the mean attitudes toward federal aid to education profiles of the superintendents of the ten largest and the ten smallest school districts by student population.

The 0.05 level of confidence was established as the level beyond which the null hypothesis would be rejected.

Inclusion of a Separate Study Group

As one condition to receive a small research grant to help support the study, it was agreed to include nonpublic school administrators in the study. Nonpublic school administrators had not been considered in the original proposal and were not a part of the proposal approved for dissertation. Approximately 15 per cent (60) nonpublic chief school administrators were sent

the same three-part questionnaire as the public school superintendents. The percentage of returns was very low even though the second and third requests were sent in the same manner as the public school superintendents. Four questionnaires were not delivered, 32 were returned. Of the 32 returned, three were incomplete and four were not completed for various reasons. Since the number of usable returns (25) was under 50 per cent and the N was small, the results of the data analysis stand a high chance of being biased.

Returns from nonpublic school administrators were tested on the same hypotheses as the public school superintendents except they were not analyzed by state or by the 10 largest or 10 smallest school systems. One additional hypothesis stated below was tested using the t - test technique.

> H_0: There is no significant difference between the means of the attitudes toward federal aid to education profiles of the superintendents of the public schools and the chief school administrator of the nonpublic schools.

A significance level of 0.05 was established for rejection of the hypothesis.

CHAPTER IV

FINDINGS

The findings of the study are presented in this chapter. There are four sets of findings: (1) analysis of incidence of agreement, (2) multiple regression analysis, (3) correlation analysis, and (4) mean difference analysis. These analyses are applied to three federal aid to education profiles: (1) a set of statements judged to be descriptive of general to categorical federal aid to education (Profile I), (2) a subset of these statements judged to be descriptive of general or mostly general federal aid to education (Profile II), and (3) a subset of the statements judged to be descriptive of mostly categorical to categorical federal aid to education (Profile III). The profile statements are identified in Appendix C.

The major study group is comprised of questionnaire responses from 151 randomly selected public school superintendents from the states of Alaska, Idaho, Oregon and Washington. For analyses purposes this study group is divided into sub-groups by state and by the largest and smallest 10 school districts in student population. Twenty five randomly selected chief school administrators of non-public schools from the same states are also included in the study. The means and standard deviations of the dependent variable are reported by profile and subgroup in Table III.

TABLE III

FEDERAL AID INVENTORY SCORE
BY PROFILE AND SUBGROUP

Subgroup	Profile	N	Score Range	Mean	Standard Deviation
Alaska	I	8	0-147	64.50	18.39
	II	"	0-21	12.50	4.44
	III	"	0-84	29.63	11.72
Idaho	I	15	0-147	64.47	25.32
	II	"	0-21	13.60	2.77
	III	"	0-84	27.60	17.81
Oregon	I	41	0-147	58.51	18.45
	II	"	0-21	13.15	3.96
	III	"	0-84	25.29	15.31
Washington	I	87	0-147	54.37	17.76
	II	"	0-21	11.91	4.30
	III	"	0-84	21.45	14.09
Total Public	I	151	0-147	57.03	18.98
	II	"	0-21	12.44	4.10
	III	"	0-84	23.54	14.81
Largest Ten	I	10	0-147	63.10	18.96
	II	"	0-21	8.80	3.49
	III	"	0-84	31.80	14.25
Smallest Ten	I	10	0-147	63.70	25.84
	II	"	0-21	13.60	3.03
	III	"	0-84	27.50	18.79
Non-Public	I	25	0-147	67.20	19.31
	II	"	0-21	11.16	3.99
	III	"	0-84	33.20	15.06

Significance level for hypothesis rejection was set at the .1 or better level. Using the .1 level of significance is defensible in this study because the study is designed to investigate the possibility of multiple relationships and the conclusions are based on the .1 level of significance only to the extent that findings at the .1 level of significance support other findings at the .05 or better level of significance.

I ANALYSIS OF INCIDENCE OF AGREEMENT

One objective of the study was to determine if local public school superintendents have different attitudes toward federal aid to education, also specific provisions and requirements of federal aid to education programs. The procedure used to accomplish this objective was to analyze the returns from all the local public school superintendents for the degree of agreement with specific statements in the Federal Aid to Education Profile Inventory. The incidence of agreement with each profile statement was tallied and the per cent of agreement computed. A chi-square test of chance agreement using the following null hypothesis was applied to each statement.

> H_0: There is no significant difference between the frequency of occurrence of agreement and disagreement expected in the population, and any observed differences are merely chance variations to be expected in a random sample of 151 responses taken from the population of responses under consideration.

TABLE IV

ANALYSIS OF THE INCIDENCE OF AGREEMENT WITH EACH PROFILE STATEMENT SHOWN BY THE TOTAL SAMPLE OF PUBLIC SCHOOL SUPERINTENDENTS

Statement Number	Number Agreeing	Per cent Agreeing	Significance Level	Statement Number	Number Agreeing	Per cent Agreeing	Significance Level
**1	83	55	NS	*22	85	56	NS
*2	116	77	.01	23	27	18	.01
*3	118	78	.01	**24	20	13	.01
**4	31	21	.01	25	53	35	.01
*5	47	31	.01	*26	94	62	.01
**6	39	26	.01	*27	29	19	.01
7	111	74	.01	**28	38	25	.01
*8	86	57	.1	**29	85	56	NS
9	97	64	.01	30	36	24	.01
**10	65	43	.1	*31	57	38	.01
11	113	75	.01	**32	32	21	.01
12	81	54	NS	33	42	28	.01
*13	115	76	.01	**34	51	34	.01
14	118	78	.01	35	97	64	.01
*15	69	46	NS	**36	58	38	.01
**16	10	7	.01	*37	103	68	.01
*17	65	43	.1	*38	89	59	.05
**18	43	28	.01	39	69	46	NS
*19	108	72	.01	*40	74	49	NS
**20	37	25	.01	**41	34	23	.01
21	99	66	.01	**42	20	13	.01

* Statements in Profile II

** Statements in Profile III

Table IV contains the results obtained from tallying, per cent computation, and chi-square analysis. There were 2,853 incidents of agreement on the total instrument (Profile I), representing 45 per cent agreement. Profile II showed 1,255 (55 per cent) agreement, and Profile III showed 724 (32 per cent) incidents of agreement.

II MULTIPLE REGRESSION ANALYSIS

The second objective of the study was to determine if there is a relationship between the local school superintendent's attitude toward federal aid to education profiles and selected factors in his experience and environment. One procedure used to achieve this objective was to test the following null hypothesis by multiple regression analysis.

> H_0I: There is no significant relationship between the local school superintendent's attitudes toward federal aid to education profiles and selected factors in his experience and in environment.

Factors to be investigated:

1. Superintendent's progressivism-traditionalism score as measured by Kerlinger's Education Scale
2. Age
3. Formal education
4. Recency of training
5. Number of years in present position
6. Number of years as a superintendent
7. Experience with federal aid to education programs as measured in years
8. Experience with federal aid to education programs as measured in the number of different programs

9. Experience with federal aid to education programs as measured in dollar amounts
10. Per cent of local contribution to the total operating school budget

Computations were done by the UCLA step-wise regression analysis package described in Chapter III. The Alaska Department of Education data processing and research analysts performed the necessary analysis using the state's IBM 350-40 computer. Summary results of the analysis of Profile II for the major study group are reported in Table V. Tables X through XIX in Appendix F contain summary results of significant findings of other subgroups by subgroup and by profile.

Table V will be interpreted to provide an example for interpretation of the tables in Appendix F. Table V in the column headed, "F Value to Enter or Remove," shows that H_0I is rejected at the .05 level of significance for factors nine, six, eight, and four. When the significance level for rejection is set at .1, factor one can be added to the group. Referring to the factors stated earlier, one can see that: (1) experience with federal aid to education programs as measured in dollar amounts, (2) number of years as a superintendent, (3) experience with federal aid to education programs as measured in the number of different programs, and (4) recency of training,are the factors that relate to the dependent variable of attitude toward general federal aid to education at the .05 or better level of significance.

TABLE V

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE GENERAL FEDERAL AID PROFILE SCORES OF ALL PUBLIC SCHOOL SUPERINTENDENTS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Coefficient Squared	F Value to Enter or Remove
1	9	3.9777	**10.733	0.2592	0.0672	**10.7331
2	6	3.8506	**11.224	0.3629	0.1317	**10.9955
3	8	3.8002	**9.334	0.4000	0.1600	**4.9524
4	4	3.7616	**8.152	0.4273	0.1826	**4.0308
5	1	3.7472	**6.997	0.4409	0.1944	*2.1248
6	2	3.7461	**6.015	0.4476	0.2004	1.0830
7	5	3.7440	**5.327	0.4548	0.2068	1.1631
8	3	3.7491	**4.725	0.4585	0.2102	0.6130
9	10	3.7601	**4.195	0.4596	0.2112	0.1719
10	7	3.7725	**3.758	0.4600	0.2116	0.0699

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

When the level of significance is dropped to .1 progressivism-traditionalism (factor one) can be added to the list. The F Ratio column shows that the regression coefficients for these factors are significant at the .05 level of significance. The multiple correlation coefficient squared column shows that factors nine, six, eight, four, and one account for 19.44 per cent of the total variation which is significant at the .1 level. Factors nine, six, eight, and four account for 18.26 per cent of the total variation which is a significance at the .05 level of confidence.

Other findings in the multiple regression phase of analysis are reported by profile and by subgroup below.

Multiple Regression Analysis Results

1. Profile I: Includes all statements in the Federal Aid to Education Profile Inventory.

a. Recency of training, number of years of experience with federal aid to education programs and amount of federal aid were the factors showing a significant regression relationship with the Profile I attitude scores of the public school superintendents in Alaska.

b. Amount of federal aid, number of different federal aid programs, and number of years in present position showed significant regression relationships with the Profile I attitude scores of the Idaho public school superintendents.

c. There were no significant regression relationships between selected factors of experience and environment of the Oregon public school superintendents and their attitude scores on Profile I.

d. Washington State public school superintendents showed a significant regression relationship between the factors of

progressivism-traditionalism, score, age, number of years as as a superintendent, recency of training and formal education level and their attitude score on Profile I.

e. Only the progressivism-traditionalism score showed a significant regression relationship with the attitude score on Profile I for the total group of public school superintendents from Alaska, Idaho, Oregon, and Washington.

f. The subgroup of superintendents of the 10 largest school districts in student population showed no significant relationship between their scores on Profile I and selected factors in their experience and environment.

g. Recency of training, experience in number of different federal aid programs, progressivism-traditionalism score, formal education, age, number of years experience with federal aid to education programs, number of years in present position, and per cent of local contribution to the total operating school budget showed a significant regression relationship with the Profile I score of the superintendents of the 10 smallest public school districts.

h. There was no significant regression relationship between Profile I scores of the chief school administrators of non-public schools in Alaska, Idaho, Oregon, and Washington and selected factors in their experience and environment.

2. Profile II: General federal aid profile

a. Number of years as a superintendent, recency of training, and number of years in present position were the factors which showed a significant regression relationship to Profile II scores of the Alaskan public school superintendents.

b. The Idaho public school superintendents showed a significant regression relationship between their formal education level, number of years as a superintendent, and amount of federal aid received and their Profile II scores.

c. Public school superintendents in Oregon showed a significant regression relationship between their Profile II scores and the factors of age and formal education.

d. Maximum dollar amounts of federal aid and number of different federal aid programs were the factors that showed a significant regression relationship with the Washington public school superintendents' scores on Profile II.

e. Superintendents of the 10 largest school districts showed a significant regression relationship between their Profile II scores and the factors of: (1) number of years in present position, (2) per cent of local contributions to the total operating budget, (3) age, (4) recency of training, (5) progressivism-traditionalism score, and (6) number of years as a superintendent.

f. Only the two factors of age and number of years in the present position showed a significant regression relationship with the Profile II scores of the superintendents of the 10 smallest public school districts in student population.

g. Significant regression relationships were found between Profile II scores of the chief school administrators of non-public schools in Alaska, Idaho, Oregon, and Washington and the factors of progressivism-traditionalism scores, number of years as a chief school administrator, and number of different federal aid to education programs with which they had experience.

3. Profile III: Categorical federal aid profile

a. Profile III scores of Alaskan public school superintendents showed a significant regression relationship to the factor of dollar amount of federal aid over which they had administrative control.

b. Factors of: (1) dollar amount of federal aid, (2) progressivism-traditionalism score, (3) number of years in present position, and (4) age, showed a significant regression relationship to the Profile III scores of public school superintendents in Idaho.

c. Dollar amount and number of years experience with federal aid to education programs were the two factors that showed a significant regression relationship with Profile III scores of the public school superintendents of Oregon.

d. There was a significant regression relationship between the Profile III scores of the public school superintendents of Washington and the factors of: (1) formal education level, (2) age, (3) number of years as a superintendent, (4) progressivism-traditionalism score and (5) maximum dollar amounts of federal aid received.

e. The total group of public school superintendents in the region showed no factors of experience and environment which had a significant regression relationship to their scores on Profile III.

f. There was no significant regression relationship between the Profile III scores of the superintendents of the 10 largest public school districts and factors in their experience and environment.

g. There was a significant regression relationship between the factors of: (1) recency of training, (2) number of years as a superintendent, (3) progressivism-traditionalism scores, (4) number of years in present position, (5) age, (6) per cent of local contribution to the total operating school budget, and (7) number of federal aid to education programs and the scores of the superintendents of the 10 smallest public school districts.

h. There was no significant regression relationship between selected factors of experience and environment of the non-public chief school administrators in the region and their scores on Profile III.

III CORRELATION ANALYSIS

This section treats the strength of the relationships between each of the independent variables (selected factors of experience or environment) and the dependent variable of attitude toward federal aid to education profiles. The correlation analysis is a by-product of the regression analysis procedure described in section II. Hypotheses II through XI stated below were designed to test the strength of the relationships.

H_o II: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his progressivism-traditionalism score as measured by Kerlinger's Education Scale.

H_o III: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his age.

H_o IV: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his formal education.

H_o V: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his recency in training.

H_o VI: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his number of years in present position.

H_o VII: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and the number of years he has been a superintendent.

H_o VIII: There is no significant relationship between the superintendent's attitude toward federal aid to education programs and his experience with federal aid to education programs as measured in years.

H_o IX: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in the number of different programs.

H_o X: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in dollar amounts.

H_o XI: There is no significant relationship between the superintendent's attitude toward federal aid to education profiles and the per cent of local contribution to the total operating school budget.

Profile II was the only profile that showed correlation relationships which were significant at the .05 or better level. Table VI summarizes the Profile II results by subgroup. Results of the hypotheses testing of hypotheses II through XI are reported below. Findings are reported as significant for the .1 or better level of significance for the reasons stated at the beginning of the Chapter.

1. Profile I: Total federal aid to education profile inventory

   a. Hypothesis II, relationship between the progressivism-traditionalism and the Profile I score, was the only hypothesis for which there was a significant correlation relationship. This relationship was significant only for the public school superintendents of Washington and the total group of public school superintendents in the region.

   b. Hypotheses III through XI were, therefore, not supported for any of the subgroups in Profile I.

2. Profile II: General federal aid profile

   a. Hypothesis II was supported for the public school superintendents in Idaho, Washington, total region, 10 smallest school districts in student population, and for the nonpublic school chief administrators in the region.

   b. The results of testing hypothesis III showed age to be significantly correlated with the Profile II scores of the public school superintendents in: (1) Oregon, (2) the region, and (3) the 10 smallest public school districts in student enrollment.

   c. Formal education level was found to be significantly correlated with Profile II scores of the public school superintendents in: (1) Idaho, (2) Oregon, (3) the region, and (4) the largest 10 public school systems in student population as a result of testing hypothesis IV.

TABLE VI

CORRELATION RELATIONSHIPS BETWEEN THE GENERAL FEDERAL AID PROFILE SCORES OF EACH SUBGROUP SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT (HYPOTHESES II-XI)

Hypotheses	AK	ID	OR	WA	Total	Ten Largest	Ten Smallest	Non-Public
H_o II	.26	**-.56	-.26	*-.20	**-.22	-.06	*-.59	**.62
H_o III	.25	27	**.35	.16	**.16	.27	**.65	-.02
H_o IV	.56	**-.61	**-.35	-.14	**-.17	**.69	.16	.24
H_o V	.09	.37	-.01	-.02	-.03	.12	.03	-.16
H_o VI	.05	.12	.16	.04	.05	**.92	.30	.05
H_o VII	**.75	.31	.26	*.19	**.22	.54	.29	.27
H_o VIII	.23	*.44	.12	.12	.13	.00	.23	-.22
H_o IX	.47	*.51	-.07	.13	.07	.28	.40	.26
H_o X	.09	-.39	-.12	**-.29	**-.26	.28	*.60	.18
H_o XI	-.54	.09	*.30	-.09	.06	.06	.18	-.07

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

d. No significant correlations were found between the factor of recency of training and any of the subgroup scores in Profile II. Therefore, Hypothesis V was not supported.

e. Number of years as a superintendent showed a significant correlation with the Profile II scores of the superintendents of the 10 largest public school districts in student population in the region. Results of testing Hypothesis VI showed no other significant correlation relationship.

f. The results of testing Hypothesis VII showed a significant correlation relationship between Profile II scores and the number of years as a superintendent for public school superintendents in Washington and in the region.

g. Results of testing Hypothesis VIII showed number of years experience with federal aid to education programs to be significantly correlated with Profile II scores of public school superintendents in Idaho.

h. Profile II scores of public school superintendents in Idaho and the smallest 10 public school districts in student population in the region were found to be significantly correlated with the number of different federal aid to education programs with which the superintendents had experience (Hypothesis IX.)

i. The results of testing Hypothesis X showed maximum dollar amount of federal aid to be significantly correlated with Profile II scores of the public school superintendents in the region and in the State of Washington.

j. The results of testing Hypothesis XI showed a significant correlation relationship between per cent of local contribution to the total operating school for the public school superintendents in Oregon.

3. Profile III: Categorical federal aid profile

Only Hypothesis X was supported for Profile III. That is, only maximum dollar amounts of federal aid received was significantly correlated with the Profile III scores. Three subgroups, public school superintendents in Alaska, Idaho, and Oregon showed a significant correlation relationship with this factor. Therefore, Hypothesis II through IX and XI were not supported.

IV MEAN DIFFERENCE ANALYSIS

Although the hypotheses of the study did not require mean difference tests, it was felt the information gained by testing the two null hypotheses below would provide additional information for comparison purposes.

Chi-square analysis was used to test the mean difference between the profile scores of the 10 largest and 10 smallest public school districts in student population. The null hypothesis stated below was analyzed and the results are reported in Table VII.

> H_0: There is no significant difference between the mean attitudes toward federal aid to education profiles of the superintendents of the 10 largest and the 10 smallest school districts in student population.

TABLE VII

MEAN DIFFERENCE: 10 LARGEST AND 10 SMALLEST PUBLIC SCHOOL DISTRICTS

	Largest 10		Smallest 10				
	N	Mean	N	Mean	D.F.	f^2	P
Profile I	10	63.100	10	63.700	1	0.83	NS
Profile II	10	8.800	10	13.600	1	3.20	NS
Profile III	10	31.800	10	27.500	1	3.33	NS

The results of the test showed the null hypothesis to be tenable for all three profiles.

A t-test technique was used to test the following null hypothesis.

> H_0: There is no significant difference between the means of the attitudes toward federal aid to education profiles of the superintendents of public schools and the chief school administrator of the non-public schools.

The following table summarizes the results of the hypothesis testing.

TABLE VIII

MEAN DIFFERENCE: PUBLIC AND NON-PUBLIC SCHOOL ADMINISTRATORS

	Public			Non-Public					
	N	Mean	S.D.	N	Mean	S.D.	D.F.	t	P
Profile I	151	57.03	18.98	25	67.20	19.31	174	2.40	.05
Profile II	151	12.44	4.10	25	11.16	3.99	174	1.45	NS
Profile III	151	23.54	14.81	25	33.20	15.06	174	2.92	.01

The null hypothesis was rejected at the .05 level of confidence for Profile I, tenable for Profile II and rejected at the .01 level of confidence for Profile III.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A summary of: (1) the purpose of the study, (2) procedures used, and (3) the findings, are presented in this chapter. Conclusions based on the findings and recommendations regarding possible use of the findings and future research in the area are also treated.

I SUMMARY

Purpose of the Study

The purpose of this study was to: (1) determine if local school superintendents have different attitudes toward federal aid to education profiles; (2) determine the degree of agreement or disagreement that local school superintendents exhibit toward specific provisions and requirements of federal aid to education programs; and (3) test hypotheses concerning the relationship of the local superintendents' attitude toward federal aid to education profiles and selected factors in his experience and environment.

Procedures

The procedures used in the study included: (1) the construction of an inventory of 114 statements about federal aid to education

provisions and requirements; (2) the submission of the instrument to a pilot group who evaluated the statements on a six point scale from general to categorical; (3) coefficient of agreement and factor analysis were used on the data returned by the pilot group to determine the items to be used in the final instrument; (4) the administration of the final instrument along with the instrument to gather personal and demographic data and Kerlinger's Education Scale (Progressivism-traditionalism); and (5) analysis and interpretation of the data.

Analysis of incidence of agreement by item was performed on the data. Multiple regression analysis was used to test the relationship between the superintendent's attitudes toward federal aid to education and the selected factors in his experience and environment. Correlation coefficients were used to further test the relationship that exists between the selected factors of experience and environment and the superintendent's attitude toward federal aid to education profiles. Mean difference analysis was applied to selected subgroups for comparison purposes.

II FINDINGS

The summary of findings are presented in two sections: (1) analysis of incidence of agreement; and (2) results of hypothesis testing by profile.

Analysis of Incidence of Agreement

The per cent of all public school superintendents agreeing with the statements in the federal aid to education profile inventory varied from a low of seven per cent to a high of 78 per cent. The results of a chi-square analysis, using p of .1 or better for agreement showed only seven of the 42 statements exhibiting less than chance incidence of agreement. The incidence of agreement on the total federal aid inventory was 45 per cent of the agreement that could have occurred. Profile II, the general federal aid profile inventory, showed a 64 per cent of maximum possible incidence of agreement. Profile III, the categorical federal aid profile inventory, showed a 32 per cent of maximum possible incidence of agreement.

Results of Hypothesis Testing

The overall hypothesis tested was:

H_0: There is a significant relationship between the local school superintendent's attitude toward federal aid to education profiles and selected factors in his experience and environment.

The overall hypothesis was expanded to 11 hypotheses for the purposes of the study. Hypothesis I treated the relationship between one or more of the following factors of experience and environment and the superintendent's attitude.

Factors investigated:

1. Superintendent's progressivism-traditionalism score as measured by Kerlinger's Education Scale
2. Age
3. Formal education
4. Recency of training
5. Number of years in present position
6. Number of years as a superintendent
7. Experience with federal aid to education programs as measured in years
8. Experience with federal aid to education programs as measured in the number of different programs
9. Experience with federal aid to education programs as measured in dollar amounts
10. Per cent of local contribution to the total operating school budget

Hypotheses number II through XI were designed to test the strength of the relationships between the independent variables (factors of experience and environment) and the dependent variable of attitude score. The hypotheses are stated below:

H_o II: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his progressivism-traditionalism score as measured by Kerlinger's Education Scale.

H_o III: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his age.

H_o IV: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his formal education.

H_o V: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his recency in training.

H_o VI: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his number of years in present position.

H_o VII: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and the number of years he has been a superintendent.

H_o VIII: There is a significant relationship between the superintendent's attitude toward federal aid to education programs and his experience with federal aid to education programs as measured in years.

H_o IX: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in the number of different programs.

H_o X: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and his experience with federal aid to education programs as measured in dollar amounts.

H_o XI: There is a significant relationship between the superintendent's attitude toward federal aid to education profiles and the per cent of local contribution to the total operating school budget.

The total federal aid inventory, the general federal aid profile inventory and the categorical federal aid profile inventory scores were analyzed seperately using hypotheses I-XI. A summary of the major findings follows:

1. Public school superintendents in the region under study differ in their attitudes toward federal aid to education profiles; also specific provisions and requirements of federal aid programs.

2. There were significant relationships between the public school superintendents' attitudes toward federal aid to education profiles as measured by scores obtained on the profile inventories and selected factors in their experience and environment. These significant relationships vary from state to state and from profile inventory to profile inventory.

3. The following factors showed the indicated significant relationship to the superintendents' attitudes toward general federal aid to education characteristics:

1. factor one negative
2. factor two positive
3. factor three negative
4. factor six positive
5. factor nine negative

4. There was no significant differences in the attitudes of the 10 largest public school districts and the 10 smallest public school districts in the region toward profiles I, II, or III.

5. There was a significant difference in the attitudes of the superintendents of the public school districts in the region and nonpublic school administrators in the region toward Profiles I and III.

III CONCLUSIONS

The conclusions of the study and their pertinent relationships with findings reported in the review of literature are summarized below:

1. The results of this study show that public school superintendents in Alaska, Idaho, Oregon and Washington differ in their attitudes toward federal aid to education as measured by their degree of agreement and disagreement with specific provisions and requirements of federal aid to education. These superintendents show a preference for general federal aid, as opposed to categorical federal aid. However, there was a sufficient degree of agreement with categorical provisions to support the idea that categorical aid is indeed acceptable to some superintendents. The acceptance of categorical provisions is probably due to the fact that federal aid provides funds to try programs that could not be funded from available state and local monies. This conclusion supports the findings of Goldhammer and associates and of Laplante, concerning differing attitudes and opinions of superintendents toward federal aid to education reported in Chapters I and III.

2. A second conclusion that can be drawn from this study is that there are significant relationships between the public school superintendent's attitudes toward federal aid to education profiles

as measured by their profile scores and selected factors in their experience and environment. These relationships vary from subgroup to subgroup and from profile inventory to profile inventory. This variance is probably due to varying local conditions and experiences among the superintendents. For example, public school superintendents in Oregon show age and formal education as significantly related to their general federal aid profile scores while years of experience with federal aid and amount of federal aid are significantly related to their categorical federal aid profile scores. This would indicate that the attitudes of public school superintendents in Oregon, who have had more experience with more federal aid dollars, are influenced by these factors.

3. The greatest relationships between the superintendents' attitudes toward federal aid to education profiles and factors in their experience and environment are to be found in the general federal aid profile, rather than the categorical federal aid profile. This is a logical conclusion when one recognizes that education dollars are becoming harder to get at the state and local levels. The obvious solution is to turn to the federal government. Public school superintendents in general agree with the idea of federal aid to education but they are not in agreement with many of the constraints placed upon categorical federal aid programs. Also, they fear the loss of a measure of local control of education.

The findings of Goldhammer and Associates concerning the superintendents' fear of loss of local control is supported by the conclusion stated above. The conclusion also supports Laplantes' finding that Washington State public school superintendents believe that general federal aid would be more effective than categorical federal aid in achieving the local districts' educational goals.

4. There is no significant relationship between the total group of public school superintendents' attitudes toward categorical federal aid to education characteristics and factors in their experience and environment, while the following factors showed the indicated significant relationship to the superintendents' attitudes toward general federal aid to education

characteristics:

a. Progressivism-traditionalism as measured by Kerlinger's Education Scale is negatively related
b. Age is positively related
c. Formal Education is negatively related
d. The number of years as a superintendent is positively related
e. The amount of federal aid in dollars over which a superintendent has control is negatively related

This conclusion lends support to the idea that younger superintendents with more formal education and fewer years as a superintendent are less likely to view categorical federal aid and its constraints negatively. That is, younger superintendents with more formal education are more willing to accept categorical federal aid and its associated constraints.

The progressivism-traditionalism relationship suggests that a superintendent who scores moderately high to high on the progressivism-traditionalism scale is less likely to view categorical aid negatively. In other words, a positive score on the progressivism-traditionalism scale indicates progressivism and the higher the score the more progressive. A high score on the progressivism-traditionalism scale relates negatively to the general federal aid profile indicating that one who scores high on the progressivism-traditionalism scale would be more willing to accept categorical federal aid and its constraints.

A last conjecture concerning this conclusion is that when the amount of federal aid is sufficiently high the superintendent will be more willing to accept categorical federal aid.

5. The findings that there is no significant difference between the profile scores of the superintendents of the 10 largest and 10 smallest public school districts indicates that the size of the school district does not affect the attitude of the superintendent toward federal aid to education profiles. However, this conclusion is based upon comparison of two groups with only 10 in each group and should be considered in that context.

6. Public school district superintendents in Alaska, Idaho, Oregon, and Washington have different attitudes toward federal aid to education profiles than chief school administrators of nonpublic schools in the same region. Chief school administrators of nonpublic schools tend to be more favorable toward categorical federal aid to education than public school superintendents. It is quite likely that nonpublic school administrators are more favorable toward categorical federal aid because the public schools are generally required to administer the federal aid program for the nonpublic schools and, therefore, the nonpublic school administrators do not have to deal directly with the constraints of the federal aid programs.

IV RECOMMENDATIONS

The recommendations are of two types: (1) recommendation for use of the findings and (2) recommendations for future research in the area.

Recommendations for Use of the Findings

Since the number of federal aid programs with which the superintendents have had experience is related to attitude scores on the general aid profile (Profile II) and the dollar amounts of federal aid is negatively related to the same attitude scores, it would seem that fewer federal aid to education programs with more money in each program would help to bring about a change in the superintendents' attitudes which would be more favorably disposed toward federal categorical aid to education.

Recommendation: Consolidate as many categorical federal aid programs as possible into one program with one set of rules, regulations, guidelines, a single project application and a single project report.

Formal education level correlated negatively with the attitude scores in the general aid profile. This implies that those superintendents who have had more formal training are more favorably disposed toward categorical federal aid requirements. The following recommendation is based on this finding and the assumption that positive attitudes toward federal aid leads to more successful programs stated on page 8.

> Recommendation: Training institutes, workshops, and conferences should be provided to the superintendents about federal aid to education programs. To the extent possible, these should be tied to higher education institutions and integrated with the academic preparation of school administrators.

The findings of this study could be used by boards of education for recruiting purposes. For example, since age and number of years as a superintendent are positively related to scores on the general aid profile, it follows that an older superintendent with more years of experience would likely be more favorable to general federal aid than categorical federal aid.

Recommendations for Further Research

Further research in the area should include: (1) extending this research to other geographical areas of the country, (2) research to determine if a significant relationship exists between superintendents' attitudes toward federal aid profiles, as measured by the attitude profile inventory in this study, and success or

failure of federal aid programs in the local districts, and (3) research on consolidated federal aid programs to determine if (a) program consolidation has a direct relationship to the superintendents' attitudes, (b) the objectives of separate federal aid programs included in the consolidation are being met to as great or greater degree than they were as separate programs, and (c) the program success ratio is increased by consolidation.

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APPENDIX A

FEDERAL AID SURVEY STATEMENTS

The following statements represent possible constraints or nonconstraints on federal aid to education. Please indicate your evaluation of each statement as to whether you view it as descriptive of categorical or general aid by placing the appropriate number from the classification scheme below on the line to the left of the statement.

1- General
2- Mostly general
3- Somewhat general
4- Somewhat categorical
5- Mostly categorical
6- Categorical

A. Law

_____a) Federal aid to education laws should be designed to alleviate identifiable national problems.
_____b) Federal aid to education laws should be designed to aid particular population groups.
_____c) Federal aid to education laws should be so broadly designed that they can be used for any educational purpose identified as a need at the local level.
_____d) Federal aid to education laws should be designed in the form of "bloc" grants; i.e., broad general purposes identified with latitude at local levels to use the funds for any and all of the general purposes, single application, combined evaluation, and fiscal reporting.
_____e) Federal aid to education should be included in a general federal revenue sharing law with decisions as to the purpose and amount for the purpose to be determined by state and local officials.
_____f) Federal aid to education laws should be so designed as to include provisions for both general needs identified at the local level and specific needs identified as national problems.

B. Rules and Regulations

_____a) Rules and regulations governing federal aid to education programs should spell out detailed procedures for all operational aspects of the program at federal, state, and local levels.
_____b) Rules and regulations governing federal aid to education programs should be general and provide broad guidelines for implementation of the programs at federal, state, and local levels.
_____c) Rules and regulations governing federal aid to education should be general and directed toward the federal agencies administering the programs.
_____d) Rules and regulations governing federal aid to education should be specific and directed toward state and local educational agencies carrying out the programs.
_____e) Rules and regulations governing federal aid to education should be broad and general enough to allow complete flexibility of program implementation at state and local levels.
_____f) Federal aid laws should be so general as to eliminate the need for rules and regulations.

C. Guidelines and Program Bulletins

_____a) Guidelines and program bulletins should elaborate upon the rules and regulations and further delineate the procedures for all operational aspects of the federal programs at the state and local levels.

_____b) Guidelines and program bulletins should elaborate upon the law, rules, and regulations but they should be for clarification only and not have the effect of rules and regulations in the absence of such rules and regulations.

_____c) Guidelines and program bulletins should be provided only for illustration and idea-generating purposes.

_____d) Guidelines should be developed at the state and local levels only for particular situations at the state and local levels.

_____e) Federal aid laws should be so general as to obviate the need for guidelines and program bulletins.

_____f) Local educational agencies should develop their own guidelines in line with local needs.

D. State Plan

_____a) A state plan should be developed in detail under the supervision and direction of the federal agency specifying the conditions under which the state agency can accept and distribute federal funds to local educational agencies.

_____b) A state plan, general in nature and easy to understand, should be developed in conjunction with the federal agency which constitutes the agreement between the state and federal government for the administration of the federal program.

_____c) A detailed state plan should be developed by the state agency but subject to negotiations and approval at the federal level. This plan would constitute the contract between the state and federal governments for operation of the federal program.

_____d) A general plan for operating the federal program should be developed by the state and local educational agencies and approved by the federal agency.

_____e) A general operational plan for the conduct of the federal program should be developed by the state agency and approved by the federal agency.

_____f) Federal aid to education laws should be general enough to obviate the need for a state plan for implementation of the federal program.

E. Project

1. Development

_____a) Local projects for the expenditure of federal aid funds should be developed by local education agency personnel in conjunction with local advisory groups and other local agencies providing similar services; i.e., Model Cities, Economic Opportunity Program. Technical assistance and direction should be provided by both the state and federal educational agencies.

_____b) Local projects for the expenditure of federal aid funds should be developed by local educational agency personnel, and information about same provided to local advisory groups and other local agencies providing similar services for the purpose of coordination.

_____c) Local projects for the expenditure of federal aid funds should be developed by local educational agency personnel with direction and technical assistance from the state educational agency personnel.

_____d) Local projects for the expenditure of federal aid funds should be developed by local educational agency personnel, with direction and assistance from the state educational agency.
_____e) Local projects for the expenditure of federal aid funds should be developed by local educational agency personnel, with technical assistance from both state and federal educational agencies, upon request by the local educational agency.
_____f) Federal aid to education laws should be so designed that local educational agencies' applications for funds would be minimal or unnecessary.

2. Complexity

_____a) The project application for federal funds should include a complex design specifying behavioral objectives, detailed procedures to meet the objectives pre- and past evaluation instruments and a detailed budget.
_____b) The project application for federal funds should include a general description of the program, objectives, and activities, along with a budget estimate.
_____c) The project application for federal funds should include a statement of purpose and an estimate of the amount of funds required to achieve the purpose.
_____d) The project application for federal funds should be flexible enough to allow the local educational agency to try different approaches without pre-design of the project. An estimate of the amount of funds should be all the budget necessary.
_____e) The project application should only require a simple statement of use and a request for an amount of money.
_____f) The project application should be necessary. Federal funds should be distributed on a per-pupil or other type of formula.

3. Participants

_____a) Federal aid programs should require that only particular groups of (both public and nonpublic) students who have identifiable needs participate in the program.
_____b) Federal aid programs should require that only particular groups of public school students who have identifiable needs participate in the programs.
_____c) All public and nonpublic school students should be eligible to participate in any federal aid program.
_____d) All public school students should be eligible to participate in any federal aid program.
_____e) The federal aid program should specify the characteristics of the participants, but local public school officials should select the participants.
_____f) The federal aid program should specify the characteristics of participants and provide for nonpublic school student participation on the same basis as public school students.

4. Design

_____a) The federal aid program should require a specific project design.

which should be spelled out in the law and rules and regulations governing the program.

_____b) Federal aid programs should encompass any of several project designs generally delineated in the law and rules and regulations.

_____c) General areas of concern should be delineated in the law and rules and regulations governing a federal aid program, but specific project design requirements should be left to the local educational agency officials.

_____d) The project design for federal aid programs should be determined locally based on a priority of identified needs and problems delineated in the law and rules and regulations governing the program.

_____e) There should be no project design requirements in any federal aid to education program.

_____f) The federal aid program should require a project design but leave the design to the innovativeness of local educational officials.

5. Purpose

_____a) Federal aid programs should be for specific purposes and those purposes should be detailed in the laws and rules and regulations governing the programs.

_____b) Federal aid programs should be for any or all of a group of purposes generally delineated in the laws and rules and regulations.

_____c) Federal aid programs should be for specific purposes, but the priority of purpose should be left to the local educational agency.

_____d) Federal aid program purposes should be determined by needs assessment conducted at the local level by local educational agency personnel including citizen participation as well as other community agencies' participation in decision making as to the purpose(s) for which the aid is to be used.

_____e) Federal aid program purposes should be determined by a needs assessment conducted at the local level by local educational officials only.

_____f) Federal aid should be for any purpose(s) that the local educational agency determines as best.

6. Conduct of Program

_____a) Federal aid programs should be conducted by public school officials for public school students and private school officials for private school students.

_____b) Federal aid programs should be conducted by public school officials for both public and private school students.

_____c) Federal aid programs should be conducted under the direction of a consortium of local personnel, including representation from parents, public and private schools, local agencies providing similar services, and lay citizens.

_____d) The state educational agency should conduct federal aid programs for the private school students and the local public educational agency should conduct programs for the public school students.

_____e) The federal educational agency(ies) should conduct federal aid programs for the private school students, and the local public educa-

tional agency should conduct programs for the public school students.

_____f) No federal aid programs should be conducted for private school students.

7. Approval Process

_____a) The federal aid program should require that projects have prior approval by local community groups providing similar programs and services; i.e., Office of Economic Opportunity Program, Model Cities programs, a citizens advisory group composed of parents and lay citizens, local board of education, State Department of Education, and the federal educational agency administering the program.

_____b) The federal aid program should require that projects have prior approval at local board of education, state educational agency, and federal education agency levels.

_____c) The federal aid program should require that projects have prior approval by local community groups, citizens' advisory groups, and the local board of education.

_____d) The federal aid program should require prior project approval by the local board of education and the state educational agency.

_____e) The federal aid program should require prior project approval by the local board of education only.

_____f) The federal aid program should be so designed that no prior approval is necessary for project activity at the local level.

8. Monitoring Process

_____a) The federal aid program should require that projects be monitored by the state educational agency, an advisory council (composed of state and local educational agency personnel, parents, lay citizens, representatives of agencies other than education performing similar functions), and the federal educational agency administering the program.

_____b) The federal aid program should require that projects be monitored but that the decision as to who and in what format the monitoring will be done be left to local educational agency determination.

_____c) The federal aid program should require that projects be monitored by the state educational agency.

_____d) The federal aid program should require that projects be monitored by state and local educational agency personnel acting in concert.

_____e) The federal aid program should require that projects be monitored by both state and federal educational agency personnel.

_____f) The federal aid program should be so designed as to eliminate the need for any project monitoring.

9. Evaluation

_____a) The federal aid program should require interim and terminal evaluation done by the grantee, a parent and citizen council, as well as state and federal educational officials.

_____b) The federal aid program should require interim and/or terminal evaluation done by either the grantee, a local parent and citizen council, state educational officials, or federal educational of-

ficials.

_____c) The federal aid program should require at least one evaluation done by a recognized independent agency with reports provided to the state and federal educational agencies.

_____d) The federal aid program should require an annual or project termination evaluation, whichever occurs first, done by the grantee and state educational officials and reported to the federal educational agency.

_____e) The federal aid program should require at least one evaluation annually, done by the grantee and reported to the state agency which in turn combines local agencies' reports and forwards to the federal educational agency.

_____f) The federal aid program should leave decision of evaluation and reporting of same to the grantee.

10. Reporting and Dissemination

_____a) The federal aid program should require progress reports and termination reports to be prepared by the grantee and disseminated locally, statewide and nationwide.

_____b) The federal aid program should require progress reports and termination reports be prepared by the grantee and disseminated locally by the grantee with copies forwarded to state and federal levels for further dissemination by the state and federal agencies.

_____c) The federal aid program should require that progress and termination reports be prepared by the grantee and sent to the state educational agency.

_____d) The federal aid program should require that only successful new approaches be reported by the grantee locally and to the state agency.

_____e) The federal aid program should require that significantly successful programs be reported and disseminated at the discretion of the grantee.

_____f) The federal aid program should be so designed that no reporting or dissemination would be required of the grantee.

11. Program and Fiscal Auditing

_____a) The federal aid program should require that both program and fiscal audits be conducted annually by independent, certified agency(ies) and by the state and/or federal educational agencies.

_____b) The federal aid program should require that both program and fiscal audits be conducted annually by either certified independent agency(ies) or the state educational agency and less frequent audits (every three to five years) be conducted by federal agencies.

_____c) The federal aid program should require that annual program and fiscal audits be conducted and that the certified agency(ies) to conduct the audit be selected by the grantee at the time the grant award is made and the report of said agency(ies) be final.

_____d) The federal aid program should only require that an annual fiscal audit be done by a certified agency of the grantee's choosing and that that report be final.

_____e) The federal aid program should only require that only a fiscal audit be done and that in conjunction with routine audits of the grantee.

_____f) The federal aid program should be so designed that no audit, either

fiscal or program, would be necessary.

F. Flow of Funds

1. Timing

_____a) Funds to support federal aid programs should be advanced in total upon approval of the program.
_____b) Funds to support federal aid programs should be advanced periodically, with up to twenty percent withheld until the final report.
_____c) Funds to support federal aid programs should be advanced upon approval of the program, with up to twenty percent withheld until the final report.
_____d) Funds to support federal aid programs should be in the form of reimbursement at the end of the program, or annually, whichever comes first, and the reimbursement should be based on complete fiscal reports.
_____e) Funds to support federal aid programs should be dispensed on the basis of a monthly to quarterly fiscal report from the grantee.
_____f) Funds to support federal aid programs should flow to the grantee upon grantee's request, without detailed fiscal reports.

2. Routing

_____a) Funds to support federal aid programs should flow directly from the federal agency to the grantee.
_____b) Funds to support federal aid programs should flow through the state educational agency to the grantee.
_____c) Funds to support federal aid programs should flow from the federal to the grantee through the state Governor's office.
_____d) Funds to support federal aid programs should flow through the state offices and local municipality to the grantee.
_____e) Funds to support federal aid programs should flow through the state legislature for appropriation at the state level and be distributed by the state educational agency to the grantee.
_____f) Funds to support federal aid programs should flow through all agencies between the federal granting agency and the grantee.

G. Matching Requirements

_____a) Federal aid programs should require that a major portion of the total cost come from state and/or local sources.
_____b) Federal aid programs should require that a major portion of the total cost come from the federal government.
_____c) Federal aid programs should require that both state and local sources of funds be used to defray at least a minor portion of the total program cost.
_____d) Federal aid programs should require some matching at the state and/or local levels, but allow the matching to be "in kind;" i.e., space, utilities, some staff time, etc.
_____e) Federal aid programs should be fully federally funded.
_____f) Federal aid programs should require a 50-50 matching of federal funds at the state or local, or both state and local levels.

H. Distribution of Federal Funds

_____a) The formula for distributing federal aid funds should consider equalization based on ability to pay for education on the part of the state and local governments, using tax base, income, and other indices.

_____b) The formula for distributing federal aid funds should be based on the number of students with identified need; i.e., income levels, educational deficiency, handicaps.

_____c) The formula for distributing federal aid funds should be based on a minimum per state with the balance being distributed on total population basis.

_____d) The formula for distributing federal aid funds should be based on the number of school age children.

_____e) Federal aid funds should be distributed on a project approval basis without specific allocations.

_____f) The formula for distributing federal aid funds should take into consideration equalization based on state and local effort, the number of school age children, and the number of children with identified need.

APPENDIX B

ROTATED FACTOR MATRICIES FOR 19 AREAS OF FEDERAL AID TO EDUCATION REQUIREMENTS

Area A	Factor I	Factor II	Factor III	Factor IV	Modal Responses
a	-0.02622	-0.71654	-0.01100		6
b	-0.36319	-0.31198	0.45583		6
c	0.92057	0.14391	-0.03726		1
d	0.90460	0.16703	0.19515		1
e	0.39083	0.76208	0.19446		2
f	0.17829	0.19851	0.52108		4
Area B					
a	-0.40378	-0.07587	0.72478		6
b	0.38862	0.54362	0.12269		2
c	0.03214	0.57894	-0.17257		3
d	-0.26639	-0.48049	0.50350		6
e	0.76748	0.14380	-0.32903		2
f	0.85694	0.10076	-0.36201		1
Area C					
a	-0.84277	0.10225	-0.37496	0.06006	6
b	-0.00174	0.75480	-0.26035	0.16906	4
c	0.04161	0.73408	0.05729	-0.11080	2
d	0.84911	0.09474	-0.06402	-0.10035	3
e	0.16220	-0.08930	0.69816	0.00698	1
f	0.78380	0.04986	0.27106	0.26241	1
Area D					
a	0.16675	-0.54044	0.60647		5
b	0.67076	-0.51054	-0.16754		4
c	-0.09354	0.07536	0.78313		5
d	0.85642	0.18117	0.11035		3
e	0.73676	0.12013	-0.06382		2
f	0.28823	0.77871	-0.00549		1
Area EI					
a	0.06953	0.81307	-0.07222	-0.03289	4
b	0.78909	0.47981	0.09661	-0.16483	2
c	0.83460	0.05334	-0.01473	0.21953	2
d	0.68276	-0.22482	0.35057	0.38260	4
e	0.18753	-0.04874	0.43066	0.70042	3
f	0.04351	-0.03709	0.53661	0.16234	1

Area E2	Factor I	Factor II	Factor III	Factor IV	Modal Responses
a	-0.01849	-0.64512	0.36615		6
b	0.70166	-0.38108	0.07507		4
c	0.65748	-0.35521	0.49103		3
d	0.76465	0.09576	-0.01625		2
e	0.83815	0.06127	-0.05375		1
f	0.02013	0.17602	-0.56086		1
Area E3					
a	0.82617	-0.11044	-0.32026		6
b	0.86773	0.11923	-0.25053		6
c	-0.20879	-0.03354	0.82463		1
d	-0.32461	0.04749	0.80333		1
e	-0.16189	0.80450	0.10389		5
f	0.18483	0.84289	-0.10069		5
Area E4					
a	0.66930	-0.47704	0.01770		6
b	0.73946	-0.20064	-0.12396		5
c	0.54564	0.20017	-0.05048		4
d	0.05458	0.58424	-0.01514		3
e	-0.03100	0.00863	0.27906		1
f	-0.18993	0.76963	0.07412		2
Area E5					
a	-0.87535	0.25047	-0.30718		6
b	-0.24928	0.64189	-0.24299		5
c	0.00132	0.70160	-0.02985		4
d	0.26689	-0.25776	0.74677		3
e	0.59479	-0.01679	0.72301		2
f	0.92487	-0.06597	0.31151		1
Area E6					
a	0.08662	-0.32006	0.47343	-0.16626	2,3 & 6
b	0.05441	0.49312	-0.17454	0.03633	2
c	0.14218	0.54016	-0.37580	-0.07897	4
d	0.90123	0.06189	0.10683	-0.14458	4
e	0.88725	0.09320	0.09554	0.12278	5
f	0.11196	-0.17188	0.39940	0.05383	6
Area E7					
a	0.73799	0.15881	0.45442	0.13036	5
b	0.57423	-0.00769	0.41098	0.63031	4
c	0.22841	0.84895	0.19730	0.08590	4
d	0.14399	0.58127	0.23089	0.63189	3
e	0.16155	0.24401	0.72447	0.21145	2
f	-0.84779	-0.26422	-0.02680	-0.17121	1

Area E8	Factor I	Factor II	Factor III	Factor IV	Modal Responses
a	-0.00353	0.83170	-0.04559		6
b	-0.00210	0.04533	0.76371		5
c	0.54061	-0.14431	0.66169		4
d	0.63449	-0.47020	0.40164		4 & 5
e	0.78377	0.15787	-0.00026		4
f	-0.02953	-0.80470	-0.02409		1
Area E9					
a	-0.78265	0.00737	0.01903		6
b	-0.66662	0.54907	-0.01958		5
c	0.03844	0.86128	0.02810		4
d	0.17238	0.80859	-0.04748		4
e	0.48364	0.22985	-0.07597		3
f	0.76426	0.11221	0.06201		1
Area E10					
a	0.94401	-0.03828	0.04178		5
b	0.91097	0.12961	0.09435		5
c	0.02879	0.33817	0.45046		4
d	0.14126	0.74194	0.27357		3
e	-0.17227	0.76017	0.15994		3
f	-0.68087	0.43522	0.33733		1
Area E11					
a	0.03591	0.90380	0.12556	-0.12461	6
b	-0.01033	0.91642	0.01996	0.17022	5
c	0.43186	0.59880	0.44382	-0.00505	4
d	0.80378	0.21983	0.40615	0.01273	3
e	0.87990	0.11984	0.06853	0.17250	2
f	0.74075	-0.1017(	0.01307	-0.16534	1
Area F1					
a	0.80810	-0.12217	-0.12217	-0.22215	1
b	0.73527	0.33550	0.33112	0.19416	5
c	0.39488	0.53706	0.53827	0.34635	4
d	0.32234	-0.20924	0.04451	0.84591	5 & 6
e	-0.00845	0.00019	0.37836	0.84160	3
f	0.20746	-0.11612	0.79456	0.18523	1
Area F11					
a	0.03325	0.88981	0.03242	0.03006	1
b	0.06719	0.87917	-0.15883	-0.03111	3
c	0.01947	0.04040	-0.43857	0.00350	3
d	0.88951	0.05544	-0.17790	0.17223	4
e	0.89674	0.04972	0.04539	-0.16281	5
f	0.98061	0.04357	0.02087	0.00908	6

Area G	Factor I	Factor II	Factor III	Factor IV	Modal Responses
a	0.84160	-0.29137	0.28940	0.03247	1
b	0.30846	0.65172	0.31065	-0.15494	3
c	0.40355	0.06999	0.62374	-0.16742	3
d	0.15694	0.24781	0.67058	0.06697	4
e	-0.29150	0.79390	0.10990	0.07784	5
f	0.87122	0.13068	0.27138	-0.09421	6
Area H					
a	0.54210	-0.00537	0.47929		4
b	0.74079	0.21594	0.03620		5
c	0.20858	0.52414	0.07804		3
d	-0.00583	0.09141	0.54741		1
e	0.02852	0.52645	0.04282		5
f	0.77856	0.13145	-0.00530		4

APPENDIX C

FEDERAL AID TO EDUCATION PROFILE STATEMENTS

The following set of statements represent possible constraints or non-constraints on federal aid to education. Please indicate your evaluation of each statement by placing a + to the left of the statements with which you agree and an 0 to the left of the statements with which you disagree.

**(6) 1. Federal aid to education laws should be designed to alleviate identifiable national problems.

*(1) 2. Federal aid to education laws should be so broadly designed that they can be used for any educational purpose identified as a need at the local level.

*(2) 3. Federal aid to education should be included in a general federal revenue sharing law with decisions as to the purpose and amount for the purpose to be determined by state and local officials.

**(6) 4. Rules and regulations governing federal aid to education programs should spell out detailed procedures for all operational aspects of the program at federal, state, and local levels.

*(1) 5. Federal aid laws should be so general as to eliminate the need for rules and regulations.

**(6) 6. Guidelines and program bulletins should elaborate upon the rules and regulations and further delineate the procedures for all operational aspects of the federal programs at the state and local levels.

(4) 7. Guidelines and programs bulletins should elaborate upon the law, rules, and regulations but they should be for clarification only and not have the effect of rules and regulations in the absence of such rules and regulations.

*(2) 8. Guidelines and program bulletins should be provided only for illustration and idea-generating purposes.

(3) 9. Guidelines should be developed at the state and local levels only for particular situations at the state and local levels.

**(5)10. A detailed state plan should be developed by the state agency but subject to negotiations and approval at the federal level. This plan would constitute the contract between the state and federal governments for operation of the federal program.

(3)11. A general plan for operating the federal program should be developed by the state and local educational agencies and approved by the federal agency.

(4)12. Local projects for the expenditure of federal aid funds should be developed by local education agency personnel in conjunction with local advisory groups and other local agencies providing similar services; i.e., Model Cities, Economic Opportunity Program. Technical assistance and direction should be provided by both state and federal educational agencies.

*(2)13. Local projects for the expenditure of federal aid funds should be developed by local educational agency personnel with direction and technical assistance from the state educational agency personnel.

(3)14. Local projects for the expenditure of federal aid funds should be developed by local educational agency personnel, with technical assistance from both state and federal educational agencies, upon request by the local educational agency.

*(1)15. The project application should only require a simple statement of use and a request for an amount of money.

**(6)16. Federal aid programs should require that only particular groups of public school students who have identifiable needs participate in the program.

*(1)17. All public and nonpublic school students should be eligible to participate in any federal aid program.

**(5)18. The federal aid program should specify the characteristics of participants and provide for nonpublic school student participation on the same basis as public school students.

*(2)19. The federal aid program should require a project design but leave the design to the innovativeness of local educational officials.

**(6)20. Federal aid programs should be for specific purposes and those purposes should be detailed in the laws and rules and regulations governing the programs.

(3)21. Federal aid program purposes should be determined by needs assessment conducted at the local level by local educational agency personnel including citizen participation as well as other community agencies' participation in decision making as to the purpose(s) for which the aid is to be used.

*(1)22. Federal aid should be for any purpose(s) that the local educational agency determines as best.

(4)23. The state educational agency should conduct federal aid programs for the private school students and the local public educational agency should conduct programs for the public school students.

**(5)24. The federal educational agency(ies) should conduct federal aid programs for the private school students, and the local public educational agency should conduct programs for the publis school students.

(4)25. The federal aid program should require that projects have prior approval by local community groups, citizens' advisory groups, and the local board of education.

*(2)26. The federal aid program should require prior project approval by the local board of education only.

*(1)27. The federal aid program should be so designed that no prior approval is necessary for project activity at the local level.

**(6)28. The federal aid program should require that projects be monitored by the state educational agency, an advisory council (composed of state and local educational agency personnel, parents, lay citizens, representatives of agencies other than education performing similar functions), and the federal educational agency administering the program.

**(5)29. The federal aid program should require that projects be monitored but that the decision as to who and in what format the monitoring will be done be left to local educational agency determination.

(4)30. The federal aid program should require that projects be monitored by both state and federal educational agency personnel.

*(1)31. The federal aid program should be so designed as to eliminate the need for any project monitoring.

**(6)32. The federal aid program should require interim and terminal evaluation done by the grantee, a parent and citizen council, as well as state and federal educational officials.

(4)33. The federal aid program should require at least one evaluation done by a recognized independent agency with reports provided to the state and federal educational agencies.

**(5)34. The federal aid program should require progress reports and termination reports to be prepared by the grantee and disseminated locally, statewide and nationwide.

(3)35. The federal aid program should require that significantly successful programs be reported and disseminated at the discretion of the grantee.

**(5)36. The federal aid program should require that both program and fiscal audits be conducted annually by either certified independent agency(ies) or the state educational agency and less frequent audits (every three to five years) be conducted by federal agencies.

*(2)37. The federal aid program should only require that only a fiscal audit be done and that in conjunction with routine audits of the grantee.

*(1)38. Funds to support federal aid programs should be advanced in total upon approval of the program.

(3)39. Funds to support federal aid programs should be dispensed on the basis of a monthly to quarterly fiscal report from the grantee.

*(1)40. Funds to support federal aid programs should flow directly from the federal agency to the grantee.

**(6)41. Funds to support federal aid programs should flow through all agencies between the federal granting agency and the grantee.

**(6)42. Federal aid programs should require that a major portion of the total cost come from state and/or local sources.

Explanation:

( ) Indicates the value assigned by the Pilot Group

* Indicates Profile II Statements

** Indicates Profile III Statements

Note: Profile I is comprised of all 42 Statements

APPENDIX D

KERLINGER'S EDUCATION SCALE

Description. The Education Scale was developed by Kerlinger and Kaya (1959a). They first attempted to isolate the major dimensions of educational attitudes through the use of Q methodology. This resulted in two dimensions: progressivism and traditionalism. Forty Likert-type items were then written and administered to a sample of approximately 200 subjects, and the results were item-analyzed. The 10 progressive and the 10 traditional items which had the highest factor saturations (based on a factor analysis) and the highest discriminatory power were selected for the final scale. The scale appears to measure attitudes varying from very favorable toward progressive educational practices to very favorable toward traditional educational practices.

Subjects. The approximately 200 subjects used for the original item analysis were not described in detail, but most of the standardization data were reported in a subsequent report (Kerlinger and Kaya, 1959b). These later samples consisted of 157 graduate and 136 undergraduate education students and 305 persons from a non-university population (including Kiwanis Club members, medical doctors, army officers, housewives, Sunday school teachers, etc.).

Response Mode. Subjects respond to each item by entering a number from -3 to +3 according to the following code: +3, agree very strongly; +2, agree strongly; +1, agree; -1, disagree; -2, disagree strongly; -3, disagree very strongly.

Scoring. Each item response is scored as follows: +3, 7; +2,6; +1, 5; no response, 4; -1, 3; -2, 2; -3, 1. The attitude score may be computed separately for progressive and traditional attitudes toward education, or together as a total score. For the separate scales, the attitude score is the sum of the item scores for the 10 items constituting each scale. The total score may then be computed by subtracting the traditional score from the progressive score. The subscale scores can range from 10 to 70, and the total scale score from -60 to +60. A high score on the progressive scale means a favorable attitude toward progressive educational practices, and a high score on the traditional scale implies a favorable attitude toward traditional practices in education. Similarly, a positive total score implies progressive attitudes, and a negative total score implies traditional attitudes toward education.

Reliability. Corrected split-half reliabilities for the progressive scale ranged from .54 to .77, with a value of .75 for all samples combined. For the traditional scale, reliabilities ranged from .68 to .79, with a value of .83 for all samples. Total scale reliabilities ranged from .68 to .81, with a value of .83 for overall scales and samples. Test-retest reliability coefficients obtained from a sample of 106 students in education after a delay of three to four months were as follows: progressive scale, .70; traditional scale, .71; and total scale, .76.

Validity. Validity was estimated by demonstrating that education students revealed more progressive attitudes than did noneducational respondents (p .001). Additional studies based on samples of 131 undergraduates, 93 graduates, and 229 noncollege subjects yielded similar validity estimates. However, Wheeler (1960) analyzed responses item by item and concluded that differences among groups are

not as great as indicated by the total score.

Comments. The Education Scale has reasonable satisfactory estimates of reliability and validity, and the authors may be correct in stating that the scale can be used in both research and administrative situations. It seems to us, however, that the scale is measuring a single continuum ranging from highly favorable to highly unfavorable attitudes toward progressive practices in education, or conversely, highly unfavorable to highly favorable attitudes toward traditional practices in education. If so, considering each end of the continuum as a separate attitude may be misleading. We would recommend the scale for research purposes only.

STATEMENTS FROM KERLINGERS EDUCATION SCALE

Instructions: Given below are 20 statements on educational ideas and problems about which we all have beliefs, opinions, and attitudes. We all think differently about such matters, and this scale is an attempt to let you express your beliefs and opinions. Respond to each of the items as follows:

Agree Very Strongly:	+3	Disagree Very Strongly:	-3
Agree Strongly:	+2	Disagree Strongly:	-2
Agree:	+1	Disagree	-1

For example, if you agree very strongly with a statement, you would write +3 on the short line preceding the statement, but if you should happen to disagree with it, you would put -1 in front of it. Respond to each statement as best you can. Go rapidly but carefully. Do not spend too much time on any one statement; try to respond and then go on.

_____ *1 The goals of education should be dictated by children's interests and needs, as well as by the larger demands of society.

_____ *2 No subject is more important than the personalities of the pupils.

_____ 3 Schools of today are neglecting the three R's.

_____ 4 The pupil-teacher relationship is the relationship between a child who needs direction, guidance, and control and a teacher who is an expert supplying direction, guidance, and control.

_____ *5 Teachers, like university professors, should have academic freedom--freedom to teach what they think is right and best.

_____ 6 The backbone of the school curriculum is subject matter; activities are useful mainly to facilitate the learning of subject matter.

_____ *7 Teachers should encourage pupils to study and criticize our own and other economic systems and practices.

_____ *8 The traditional moral standards of our children should not just be accepted; they should be examined and tested in solving the present problems of students.

_____ *9 Learning is experimental; the child should be taught to test alternatives before accepting any of them.

_____ 10 The curriculum consists of subject matter to be learned and skills to be required.

_____ 11 The true view of education is so arranging learning that the child gradually builds up a store house of knowledge that he can use in the future.

_____ 12 One of the big difficulties with modern schools is that discipline is often sacrificed to the interests of children.

_____ 13 The curriculum should contain an orderly arrangement of subjects that represent the best of our cultural heritage.

_____ 14 Discipline should be governed by long-range interests and well-established standards.

_____ *15 Education and educational institutions must be sources of new social ideas; education must be a social program undergoing continual reconstruction.

_____ *16 Right from the very first grade, teachers must teach the child at his own level and not at the level of the grade he is in.

_____ *17 Children should be allowed more freedom than they usually get in the execution of learning activities.

_____ 18 Children need and should have more supervision and discipline than they usually get.

_____ 19 Learning is essentially a process of increasing one's store of information about the various fields of knowledge.

_____ *20 In a democracy, teachers should help students understand not only the meaning of democracy but also the meaning of the ideologies of other political systems.

* Items marked with an asterisk constitute the progressive subscale; other items make up the traditional subscale.

1) Taken from: Marvin E. Shaw and Jack M. Wright, Scales for the Measurement of Attitudes, McGraw-Hill Book Co., New York, N.Y., 1967, pp. 83-86.

APPENDIX E

PERSONAL/DEMOGRAPHIC INFORMATION

1. Age
   a) under 30 b) 30-40 c) 40-50 d) over 50

2. Formal Education
   a) Bachelors b) Masters c) Special Certificate d) Doctorate

3. Recency of Training (3 semester hours or equivalent in workshops, institutes, etc., on a week/semester hour basis).
   a) within last year b) 1-3 years ago c) 3-5 years ago
   d) over 5 years ago

4. Number of years in present position
   a) under 2 b) 2-5 c) 5-10 d) over 10

5. Number of years as a superintendent
   a) under 2 b) 2-5 c) 5-10 d) over 10

6. Number of years experience with Federal aid to education programs
   a) under 1 b) 1-3 c) 3-5 d) over 5

7. Number of different Federal aid to education programs with which you have had experience
   a) none b) 1 or 2 c) 3-5 d) over 5

8. Maximum dollar amount of Federal aid in a given year over which you have had administrative control
   a) under $5,000 b) $5,000-$50,000 c) $50,000-$100,000
   d) over $100,000

9. Percent of local contribution to the total operating school budget
   a) under 10% b) 10-30% c) 30-50% d) over 50%

APPENDIX F

REGRESSION ANALYSIS TABLES IX-XVIII FOR SELECTED PROFILES AND SUBGROUPS

TABLE IX

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE TOTAL FEDERAL AID PROFILE SCORES OF IDAHO'S PUBLIC SCHOOL SUPERINTENDENTS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Coefficient Squared	F Value to Enter or Remove
1	9	23.6950	2.983	0.4320	0.1866	**2.9830
2	6	23.0075	2.476	0.5405	0.2921	**1.7885
3	5	20.4192	*3.508	0.6992	0.4889	**4.2350
4	3	20.1945	*3.001	0.7386	0.5455	1.2461
5	2	20.2902	2.559	0.7662	0.5871	0.9059
6	7	20.5641	2.203	0.7893	0.6230	0.7618
7	4	21.4462	1.787	0.8008	0.6412	0.3554
8	1	22.7470	1.418	0.8087	0.6540	0.2223
9	8	24.8743	1.056	0.8095	0.6553	0.0176

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE X

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE TOTAL FEDERAL AID PROFILE SCORES OF SUPERINTENDENTS OF THE 10 SMALLEST PUBLIC SCHOOLS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Multiple Correlation Coefficient Squared	F Value to Enter or Remove
1	4	24.2099	2.254	0.4689	0.2198	**2.2541
2	6	17.0794	**6.802	0.8126	0.6602	**9.0741
3	1	15.8561	**5.968	0.8655	0.7490	**2.1218
4	3	12.6717	**8.107	0.9308	0.8664	**4.3946
5	2	10.1745	**10.811	0.9649	0.9311	**3.7556
6	7	9.2325	**11.251	0.9785	0.9597	**1.8579
7	5	5.6992	**26.148	0.9946	0.9892	**5.8729
8	10	0.2133	**16504.754	1.0000	1.0000	**1426.1721

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XI

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE GENERAL FEDERAL AID PROFILE SCORE OF ALASKA'S PUBLIC SCHOOL SUPERINTENDENTS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Multiple Correlation Coefficient Squared	F Value to Enter or Remove
1	6	3.1937	**7.529	0.7460	0.5565	**7.5294
2	4	3.1540	*4.436	0.7997	0.6396	**1.1522
3	5	2.1627	**8.502	0.9297	0.8644	**6.6344
4	1	1.5395	**13.807	0.9739	0.9485	4.8937
5	9	0.8006	**42.663	0.9953	0.9907	0.0936
6	7	0.7390	41.948	0.9980	0.9960	1.3472

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XII

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE GENERAL FEDERAL AID PROFILE SCORES OF IDAHO'S PUBLIC SCHOOL SUPERINTENDENTS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Coefficient Squared	F Value to Enter or Remove
1	3	2.2675	**7.927	0.6155	0.3788	**7.9269
2	6	2.0359	**6.979	0.7333	0.5377	**4.1253
3	9	1.7706	**7.774	0.8243	0.6795	**4.8657
4	1	1.7121	**6.677	0.8530	0.7276	1.7645
5	8	1.6922	**5.715	0.8721	0.7605	1.2367
6	2	1.7249	**4.694	0.8825	0.7788	0.6621
7	4	1.7911	**3.791	0.8895	0.7913	0.4194
8	7	1.9169	2.910	0.8917	0.7951	0.1116
9	10	2.0874	2.188	0.8930	0.7975	0.0599
10	5	2.3270	1.587	0.8937	0.7987	0.0234

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XIII

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE GENERAL FEDERAL AID PROFILE SCORES OF OREGON'S PUBLIC SCHOOL SUPERINTENDENTS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Coefficient Squared	F Value to Enter or Remove
1	2	3.7538	**5.505	0.3517	0.1237	**5.5052
2	3	3.6743	**4.225	0.4265	0.1819	*2.7047
3	1	3.6627	**3.248	0.4566	0.2085	1.2412
4	9	3.6527	**2.750	0.4838	0.2341	1.2030
5	10	3.6847	2.238	0.4922	0.2423	0.3780
6	4	3.7173	1.897	0.5008	0.2508	0.3889
7	5	3.7460	1.670	0.5114	0.2616	0.4802
8	7	3.7992	1.431	0.5133	0.2635	0.0825
9	6	3.8515	1.253	0.5165	0.2667	0.1375
10	8	3.9108	1.100	0.5180	0.2683	0.0662

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XIV

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE GENERAL FEDERAL AID PROFILE SCORES OF WASHINGTON'S PUBLIC SCHOOL SUPERINTENDENTS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Coefficient Squared	F Value to Enter or Remove
1	9	4.1340	**7.993	0.2932	0.0860	**7.9932
2	8	3.9314	**9.414	0.4279	0.1831	**9.9888
3	10	3.9157	**6.883	0.4463	0.1992	1.6720
4	4	3.9096	**5.493	0.4597	0.2113	1.2592
5	2	3.8987	**4.711	0.4747	0.2253	1.4594
6	1	3.9051	**4.036	0.4820	0.2324	0.7374
7	5	3.9192	**3.495	0.4863	0.2364	0.4219
8	6	3.9238	**3.153	0.4943	0.2444	0.8158
9	7	3.9468	**2.781	0.4953	0.2453	0.0955

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XV

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE GENERAL FEDERAL AID PROFILE SCORES OF SUPERINTENDENTS OF THE 10 SMALLEST PUBLIC SCHOOLS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Multiple Correlation Coefficient Squared	F Value to Enter or Remove
1	2	2.4391	**5.850	0.6499	0.4224	**5.8500
2	5	1.2638	**22.296	0.9297	0.8643	**22.8008
3	4	1.3087	**14.037	0.9356	0.8753	0.5278
4	1	1.3760	**9.630	0.9408	0.8851	0.4274
5	3	1.3780	**7.878	0.9528	0.9078	0.9852
6	8	1.5270	*5.389	0.9566	0.9151	0.2575
7	10	1.5564	4.574	0.9702	0.9412	0.8878
8	7	1.3666	5.390	0.9886	0.9773	1.5941

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XVI

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE GENERAL FEDERAL AID PROFILE SCORES OF THE NONPUBLIC SCHOOL CHIEF ADMINISTRATORS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Multiple Correlation Coefficient Squared	F Value to Enter or Remove
1	1	3.1908	**14.456	0.6212	0.3859	**14.4561
2	6	2.9899	**10.330	0.6959	0.4843	**4.1959
3	8	2.8538	**8.608	0.7426	0.5515	**3.1474
4	4	2.8420	**6.804	0.7592	0.5764	1.1758
5	3	2.8098	**5.861	0.7789	0.6067	1.4602
6	2	2.8733	**4.699	0.7812	0.6103	0.1698
7	10	2.9467	**3.846	0.7829	0.6129	0.1146
8	7	3.0276	**3.200	0.7845	0.6154	0.1033
9	5	3.1166	**2.696	0.7861	0.6179	0.0989

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XVII

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE CATEGORICAL FEDERAL AID PROFILE SCORES OF OREGON'S PUBLIC SCHOOL SUPERINTENDENTS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Multiple Correlation Coefficient Squared	F Value to Enter or Remove
1	9	14.9499	*2.935	0.2646	0.0700	**2.9351
2	7	14.5506	*3.134	0.3763	0.1416	**3.1698
3	5	14.5031	*2.520	0.4119	0.1696	1.2494
4	3	14.5571	2.057	0.4313	0.1860	0.7259
5	6	14.5155	1.896	0.4617	0.2132	1.2066
6	4	14.6845	1.577	0.4666	0.2178	0.1990
7	1	14.8604	1.349	0.4717	0.2225	0.1998
8	2	15.0806	1.151	0.4728	0.2235	0.0432
9	8	15.3101	0.998	0.4740	0.2247	0.0482
10	10	15.5538	0.874	0.4750	0.2256	0.0361

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence

TABLE XVIII

MULTIPLE REGRESSION RELATIONSHIP BETWEEN THE CATEGORICAL FEDERAL AID PROFILE SCORES OF SUPERINTENDENTS OF THE 10 SMALLEST PUBLIC SCHOOLS SAMPLED AND SELECTED FACTORS IN THEIR EXPERIENCE AND ENVIRONMENT

Step Number	Factor	Standard Error	F Ratio	Multiple Correlation Coefficient	Multiple Correlation Coefficient Squared	F Value to Enter or Remove
1	4	17.1149	2.844	0.5121	0.2623	**2.8443
2	6	13.7893	**4.853	0.7622	0.5810	**5.3240
3	1	11.3612	**6.203	0.8696	0.7562	**4.3118
4	3	7.1503	**14.282	0.9589	0.9195	**10.1479
5	2	5.3433	**21.452	0.9819	0.9640	**4.9538
6	10	5.2131	**18.980	0.9871	0.9743	**1.2022
7	9	1.8082	**138.500	0.9990	0.9979	**22.9353
8	5	1.4703	*183.542	0.9997	0.9993	2.0249

* Significant at 0.1 level of confidence
** Significant at 0.05 level of confidence